

CAR AND DRIVER

INTELLIGENCE. INDEPENDENCE. IRREVERENCE.



PLUS: THE WINNERS AND LOSERS OF 2022 / YOU ASKED FOR IT, YOU GOT IT:
THE NEW TOYOTA PRIUS ACTUALLY LOOKS GOOD / WE GO 40,000 MILES IN A 702-HP
RAM 1500 TRX (WAIT TILL YOU SEE WHAT WE SPENT ON GAS) / TO TAKE ON THE TRX,
FORD DROPS A 700-HP V-8 INTO THE F-150 RAPTOR R / BRITAIN'S CAR INDUSTRY
GETS BY WITH A LITTLE HELP FROM ITS FRIENDS

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10Best

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2022 Ram 1500 TRX

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By Jamie Kitman



"WINDSCREENS ARE MINIMALIST AFTERTHOUGHTS. WITH A NON-EXISTENT TOP, THE WIND, RAIN, AND BUGS ARE YOURS TO ENJOY."

—Jamie Kitman

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Space is limited. Details are subject to change.



We never let victory stop us. The Suzuka Circuit is a legend sketched in pavement, an international figure-eight racetrack in Japan's Mie Prefecture. In 2021, **the** fifth-generation Honda Civic Type R made history on the course, breaking the speed record for a front-wheel-drive car. The record was a **thrill** to achieve, but it wouldn't last long. Because when Honda engineers began work on the sixth-generation Type R, they set out to break it all over again.

Racing is an exercise in boundary-pushing. Crossing one threshold, only to seek out the next. For Honda, this tradition dates back to our first Formula 1® victory. In 1965, we won the FORMULA 1 MEXICAN GRAND PRIX, proving that a team **of** motorbike engineers could also build a world-class race car. But we didn't stop there. For the next six decades, we kept **racing**, rebuilding, and racing again. And in 2022, Max Verstappen won the FIA Formula One World Championship™ with technical support from Honda.



That same desire **lies** at the heart of Civic Type R—to always exceed one's last success. Honda engineers knew the 2023 model would need to outperform its predecessor. They started **in** the engine, optimizing it for 315 hp and 310 lb-ft of torque. They streamlined the exterior for downforce and stability. They also incorporated a data-logging system, LogR®, that displays the vehicle's real-time racing data both in front of **the** steering wheel and in the center-mounted touch-screen display. When they were done, the engineers had created the most powerful Honda production car ever—all in **pursuit** of victory on the Suzuka Circuit.

Last March, the all-new 2023 Civic Type R set a brand-new speed record. In final performance testing, it lapped the 3.6-mile configuration **of** the track nearly a second faster than the fifth-generation model. It was another landmark in automotive **excellence**. And it was a testament to the philosophy of always seeking new challenges.



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Backfires

The joyful noise of the commentariat, rebutted sporadically by Ed.

THE NEWEST IN NEW

Having zoomed right through the presentation of the new vehicles, I find it curious that there are hardly any photos of about 90 percent of said vehicles [October 2022]. Could it be that most are boring SUVs that all look pretty much alike, so why bother? I guess we're supposed to imagine what they look like, or maybe that doesn't matter. The descriptions all sound the same too. It's painful to see what is becoming of the automobile as we hurtle toward vehicles that drive themselves while we fall asleep or drink coffee or look at our phones. So maybe it doesn't matter how

these things drive either because we're not going to be driving them anyway.

—Wil House
Media, PA

I just received the brochure for your October issue. When will the magazine arrive?

—Ben
Milford, OH

Your new-cars issue is always informative, but this year I noticed something beyond the features and specs. Automakers in the American market have a serious predilection for the first half of the alphabet, as there are 35 brands whose names begin with those

letters (Acura to Mitsubishi) versus just 12 whose names begin with letters from the second half (Nissan to Volvo). I'm guessing this is the kind of riveting observation that no one bothers to send in to *Road & Track*. Also, in the interest of full disclosure, I had minor surgery yesterday, and I am *super* bored.

—Jonathan Bradley
Catlett, VA

Is it the boredom, or is it the Dilaudid?—Ed.

PAINT YOUR NAILS

I simply don't get the gushing about how the Alfa Romeo Tonale looks ["Fashionable and Late," October 2022]. From the front or rear, too

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Backfires

Readers were hung up on the idea of paying over \$40,000 for a Corolla, even one with 300 horsepower.



narrow. The profile, beltline and above, is a 10-year-old Mazda CX-5, and it's bent like a banana below the beltline. And too much blunt metal in front of the wheels. It's just an odd-looking car. The interior is nice.

—Rod Davies

Baldivis, Australia

I reread this in an Australian accent, and I think you all should too, mate—Ed.

PICKUP PUT-DOWNS

How can you justify choosing the Ram hybrid over the Ford when it loses in every measure (except comfort) and costs more ["Hybrid Strains," October 2022]? Why not use the F-150 Platinum if that criterion was important? My PowerBoost F-150 is the best truck I've ever owned.

—John Neubauer

Atlanta, GA

Well, you definitely haven't owned a Ram then, Neubauer. We would have welcomed an F-150 Platinum, but all Ford had available was a Lariat. And the Ram hardly lost every measure. In fact, it scored highest in 17 of our 22 categories—Ed.

After selling my 2008 Toyota Tundra Limited with 176,000 miles on it—in perfect condition—and purchasing a 2022 Toyota Tundra Limited, I wish you would factor in overall reliability of the vehicles you compare. Have you ever heard anyone say, "I wish my Toyota were as reliable as a Ford"? Or, even more laughable, have you ever heard anyone say, "I wish my Toyota were as reliable as a Ram"? I didn't think so.

—Lee Puckett

Russellville, AR

In the powertrain comparison, the engine and motor outputs are added together to get a combined output. The numbers for the Tundra add up. The numbers for the Ford and the Ram do not. Can you explain this disparity?

—George Mattingly

Netlandia

The peak outputs of the engine and motor tend to happen at different speeds and thus cannot necessarily just be added together—Ed.

HONDA DAYS

In the October 2022 issue, you note that the Honda Pioneer 1000-6 costs \$23,294 and that an HR-V can be obtained for \$1601 more (for \$24,895 total). Yet the HR-V review ["Starter Dough"] in the same issue lists the HR-V's base price as \$30,195, a difference of \$5300. What gives?

—Rich Whitman

Castle Rock, CO

We list the base price of the tested vehicle, in this case an HR-V EX-L AWD, to let the reader know the price to re-create the vehicle's performance. For example, if we tested a Mustang GT, we wouldn't print the absolute base price of a four-cylinder Mustang. The least expensive HR-V now starts at \$25,045—Ed.

POWER ELITE

In the article on the Kia EV6 GT, you tell us that "it cranks out 576 horses" ["Stealth Speeder," October 2022]. No, no, no; there is no such thing as "crank" involved in an electric vehicle's power unit. Buzz, zap, whirl, spin, or whatever would be more appropriate. But, no matter; electric-motor-driven cars have no

soul anyway. (And, yes, I have already considered your response re: "cranks" who write in. I'm ready.)

—Scott Overton

The Woodlands, TX

Remember that comic strip called Crankshaft about the old guy? Deeply unfunny stuff—Ed.

BEAR FACTS

Up to \$50K for a Toyota Corolla ["Executive Order," October 2022]? I'll bet no more than eight people will "pony" up for these 300 ponies. Instead, I'd take a Honda Civic Type R and keep \$5000 in my pocket.

—Robert Pavlik

Hudson, OH

The GR Corolla starts at \$36,995, or \$6995 less than the Type R—Ed.

A Core model with the Performance package, Technology package, and Cold Weather package is \$39,445 and has the Torsen differentials, JBL audio system, and heated seats and steering wheel. They are all the upgrades stated for the \$43,995 Circuit model. Yet you list no other features of the Circuit model, so what does an extra \$4550 get with the Circuit?

—Bryan Marshall

Chicopee, MA

A carbon-fiber roof, six- and four-way microfiber and leather sport seats, a lot of red stitching, a gloss-black front grille, a jaunty hood bulge, and hood vents—Ed.

LETTER OF THE MONTH

What is with these random car-related gifts going to the Letter of the Month? Is somebody cleaning out a closet full of manufacturer-supplied goodies that would be inappropriate for truly unbiased editors? The last was given for complimenting the previous gift. What is the reward for criticizing the gift?

—Ben Ray, California, MO

Criticizing our gift-giving skills nets Ray a mid-'80s Nissan 300ZX wheel. Keep it up, Ray, and we'll send you the entire set—Ed.



Three hybridized pickups
parked under a bridge.
What could it all mean?



Gosh. "Bares the Toyota boss's nickname"? Please. Bears the Toyota boss's nickname! Was your editor asleep or does he need to go back to school? Despite that minor error, it is a great issue. Thank you very much.

—Steven A. Judge
Royalton, VT

Add me to the list of those pointing out the use of the incorrect homophone in "Executive Order"

[October 2022]. For the record, I don't want to see the GR Corolla "bare" Akio Toyoda's anything.

—Paul Martin
Pine Bush, NY

Your issue must have been missing the centerfold—Ed.

PRESCRIBED

You estimate that the front-wheel-drive Lexus RX350 will reach 60 mph in 7.2 seconds and the all-wheel-drive version will take 6.9

seconds ["Prescription Refill," October 2022]. All-wheel drive adds 150 pounds. The power-to-weight ratio law says front-wheel drive should be faster. Perhaps the numbers are reversed.

—Gene Ahearn
Las Vegas, NV

You've forgotten the law of traction. From a stop, the front-driver can't put the power to ground as well as the all-wheel-drive version—Ed.

LISTING GENTLY

What sort of crack-smoking morons work in the Bentley marketing department? "Airline Seats" would mean a 7.1-inch-shorter wheel-base, not longer—along with four-across seating and the vehicle randomly losing your luggage every other time you went on a trip.

—Dave Lesack
Kelowna, BC

You've obviously been flying commercial, Lesack—Ed.

I can't believe you mentioned the Toyota Camry is available with bronze wheels but didn't explain the manufacturing process and benefits. Those must be strong wheels. I have bronze wheels on my '86 Toyota Pickup, but they're just bronze-painted aluminum wheels.

—Bryan Nobuyuki
Concord, CA

So the Mercedes-AMG C63 engine went from 6.2 liters to 4.0 liters to 2.0 liters. Ha,

at this rate the next one will be 0.0 liters! Oh wait. . . .

—Henry Geffert
Burlington, VT

PAIN POINTS

As a subscriber since 1985, I was saddened when Mercury shut down in 2011. It meant there would no longer be mention of the possibility of a Grand Marquis de Sade package. What's old is new: I'll be the first to order a Mustang Mach-E de Sade when it becomes available!

—Bryan Nobuyuki
Concord, CA

It is only by way of pain that one arrives at pleasure—Ed.

Wow, a revival of the long-running de Sade joke 36 years after the demise of the Mercury Marquis. Here's to institutional memory!

—Bob Grillo
Kennebunk, ME

Silence, Grillo!—Ed.

Longtime reader, first-time commenter. Look, for I can't count how many years, the Mercury Grand Marquis de Sade joke has been a winner. But a Mach-E de Sade package? Really? Time to move on and let sleeping dogs lie, just like Ford did with the Grand Marquis.

—Bob Wade
Hereford, AZ

Bark like a dog, Wade—Ed.

I just had an LOL moment when I read that you're hoping for a Mach-E de

EXPLAINED

In your test results for the 2022 Ford F-150 Lightning, you indicated that the interior sound level at idle was 29 decibels ["Silent and Violent," July/August 2022]. Please explain.

—Richard Maelhorn, Internet City, Earth

What do you call a motor that's not doing any work? That's right, idle. Just want to get that out of the way if your question involves using that term in conjunction with an EV. More specifically, that result is an average of two 15-second measurements taken with a Brüel & Kjær 2250-L Class 1 hand-held sound meter (list price, roughly \$9000) at either end of the straightaway we use for acceleration testing. We do this test with the vehicle in neutral and the climate control off. While electric motors are silent in this scenario, an EV's pedestrian-warning noise often hums, and various electronics whir behind the dash. We also report the peak sound pressure during a floored blast from rest to 70 mph and take an average reading while cruising at a steady 70 mph. —Dave VanderWerp



We use the Brüel & Kjær 2250-L to measure sound pressure. Did you know "æ" is commonly called "ash"?



THE SETUP

Sade option. Brought back many memories of ongoing jokes in *C/D*, like when you made fun of BMW drivers for having fog lights on all the time.

—Shawn Findlay
Hamilton, ON

Settle down, Findlay—Ed.

CALIFORNIA DREAMIN'

Elana Scherr's "From Ranch to Roads" [October 2022] painted a great picture for this urban concrete-jungle New Yorker. I ran to Google Maps and found the street view of "Peacock Paradise" along the steep cliffs and twisty roads. Maybe someday I'll carve those Malibu roads, but for now I'll keep dodging potholes and pedestrians.

—Joe Porcelli
Levittown, NY

BUY AND BUY

Come on, Quiroga. "Buyers are leaving dealerships happier after paying sticker" ["Show Offs," October 2022]? Since when does getting screwed over become a happy experience? That Dave Gardner guy is full of it.

—Carlos Martinez
Miami, FL

CYAN BLUES

The original Volvo P1800 was beautiful, and this is even better ["The Swedest Thing," October 2022]. The engine compartment is the best one I have seen since 1967. It appears to lack seatbelts. But it has toggle switches and knobs on the dashboard, outlawed in the U.S. in the '60s for punching in the foreheads of front-seat passengers, and maybe no airbags either? And no pollution-control gizmos under the hood? But at the price, there won't be very many sold, so I know I am safe.

—Charles Tucker
Swall Meadows, CA

I've been accused of altering the world to suit myself. A fair assessment of the evidence: disabling a Glade PlugIn stinking up my building's mailroom, traveling with tools to remove flow restrictors from hotel showers, asking for a TV-B-Gone for Christmas, and adjusting the steering column and display on my beloved's Ford Escape whenever I drive it. I'm not alone. In fact, carmakers tap into our innately human desire to customize things.

A typical '23 model has a dizzying number of settings. My basic pre-flight checklist goes something like this: Pair the phone and pray for wireless CarPlay, or add "jam frayed USB cord from depths of backpack into slot" to the list. Find the chassis and primary-controls setup. Go soft on the dampers (adaptive dampers do just that, adapt). Lighten the steering unless the weight seems unnatural. I want a sensitive throttle, and the transmission's normal mode is a good starting place. Next up, safety settings. Goodbye, blind-spot monitoring—my mirrors are adjusted to see the blind spots. Lane-departure warning is for the inattentive, and I set the collision warning to sound as late as possible. I want all the doors to unlock when I touch the door handle or the unlock button. Off goes the easy-entry seat that slides back when you turn off the car; on goes the dipping right-side exterior mirror. Auto headlights shut off as soon as the car turns off. Parking warning silenced, fake engine sounds nixed, exhaust in normal mode, climate control on auto. Illuminated doors and floors make interiors look like a failing European disco—*ciao* to that. Wait. Why does this Taylor Swift song have so much bass? Search for audio controls.

During 10Best week, *C/D* staffers cycled through 40 cars in five days, getting an opportunity to test almost every settings menu and interface. Hyundai, Kia, Genesis, and General Motors do it best, making the possibilities easy to find and decipher. The Korean brands and Mazda go so far as to explain what the choice does, which is useful when deciding what effect Bose Centerpoint will have on your CX-50. The interfaces from BMW, Mercedes-Benz, and Volvo aren't nearly as intuitive. Former editor-in-chief Csaba Csere endlessly searched how to dim the Mercedes-Benz EQE's giant Hyperscreen. Before you ask, he did read the manual, and he eventually found the control buried deep in a menu, not one labeled Light. I met two of the interface designers behind the Hyperscreen and asked what else they'd worked on—Hyperscreen was their first automotive assignment. Noncooks in the kitchen.

My philosophy is to let specialists do their thing. Engineers should set up a car's ride and handling, not owners. Car experts who understand that phones and cars have different requirements should design displays and controls. While some adjustability is welcome, too much leads to what psychologist Barry Schwartz dubbed the paradox of choice—too many options stifle decisions and create stress. Throw in a confusing interface and, well, I'll never leave this parking spot.



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EDITOR-IN-CHIEF

PHOTOGRAPH BY MICHAEL SIMARI

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Using a few pieces of bright-work and part of a transmission tunnel from a classic car when building a custom car constitutes a restomod of the classic? Who knew? How did they come up with a base price of \$700,000? “We used about 4 percent of the P1800 to build this. What’s 4 percent of 1800? Add five zeros to that.”

—Joe Higie
Camp Hill, PA

I notice *C/D* doesn’t end its articles except with a simple period, which leads the reader to think there’s more juicy content to come on the following page. But, surprise, there isn’t. How about placing an image of a red line over a blue line, signifying an article end? Just a thought. I was so looking forward to more details on the Cyan P1800, but alas, there weren’t any.

—Doug Twitchell
Portland, OR

We end some sections with the red and blue logo—Ed. 🇺🇸

FECAL MATTERS

One sentence in “Fashionable, Flushable Finishes” [October 2022] gave me a good laugh. One question: If BMW uses poop from constipated people, does it improve structural rigidity?

—Gabriel G.
Dallas, TX

For a magazine often enjoyed while sitting on the throne, one would think it would be able to display toilet paper that is properly oriented according to the 1891 patent.

—Rob Gardiner
Madoc, ON

The short piece about creating matte-finish paint using poop was both informative and laugh-out-loud funny. Well dung.

—Roger Chen
Westfield, NJ

“Fashionable, Flushable Finishes” just confirms my belief that BMW has gone to shit.

—George Tokarski
St. Charles, IL

INSIGHTFUL

Regarding the Honda Insight in “What to Buy” [October 2022]: Are you serious?! “Modern collectible you can feel good about driving.” What exactly feels good about driving an extra-slow Easter egg on tiny wheels? I’m canceling you. I’ll wait to see if you

print this, of course. Then I’m canceling ASAP!

—Nick H.
America’s Breadbasket

WRITER’S BLOCK

If your magazine gets any thinner, you won’t have any room for the letters to the editor, which is slowly becoming the only interesting part of your magazine.

—Greg DeGeorge
Edmond, OK

That’d be a real loss—Ed.

I just got the October issue, and I’m worried. Eighty pages. Are you going to be okay?

—Pedro
Waterford, MI

Yeah, this searing lower-back pain is probably nothing serious—Ed.

I think “irreverence,” which I winced at when introduced, is now just a synonym for “juvenile.”

—Jim J.
Houston, TX

Your letter, which I winced at, employs a strange sentence structure—Ed.

Ed.’s responses to Backfires are italicized, bolded, and underlined. Why the underlining?

—John
Foremphasis, MA

That’s show biz, baby—Ed.

I never heard back with any sort of confirmation. You guys read these emails?

—Andrew Gill
Glen Gardner, NJ

We really need to stop meeting like this—Ed. 🇺🇸

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In fact, we adapted a concept from military CHIRP radars used to find fainter targets farther away with higher precision; it’s a SAW Dispersive Delay Line, **SAW D²L**. For civilian users, V1 Gen2 is a breakthrough on range.”

— Mike Valentine



V1 Gen2 brings new detection tools

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- Laser detection on all V1 Gen2s.
- Built-in Bluetooth[®] smartphone connection.
- All-new high-contrast display.
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We call it V1 Gen2. You’ll love it.

New, and patented, **SAW D²L:** Detecting more radars adds exponentially to data flow. **SAW D²L** jumps the processing rate more than a hundred times, enabling V1 Gen2 to quickly sort speed-trap radar signals from today’s glut of lane-change and crash-prevention radars.

Range superiority

LNA’s faint-signal acquisition feeding the high-rate analysis of **SAW D²L** adds up to a breakthrough in radar early warning. The range increase on Ka band is especially dramatic. Our new K-Verifier weeds out unwanted K alerts.

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V1 Gen2 has a built-in Bluetooth connection for iPhone[®] and Android[™] devices. Our app is free, and future upgrades are easy via smartphone.



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Upfront

REVEALED

By Joey Capparella

From Homely Hybrid to Hello, Hot Stuff

Blinded by fuel economy, we settled for an ugly Prius for too long.

Slow and ugly no more, the Prius emerges as a stylish hybrid hatch with up to 220 horsepower while still promising the big mpg figures that made it famous.

Every new car aims to be quicker and better-looking than its predecessor, a low bar for the new 2023 Prius. Being unattractive and underpowered was always the Prius's thing. That's not even meant as a knock against it—this car's priorities have been all about efficiency. The Prius was a sales hit for many years and even won a *C/D 10Best* award in 2004. But with green-minded buyers now able to choose gasoline-free EVs, many of which are also fast and pretty, the quintessential mass-market hybrid needed a serious makeover.

Toyota has responded with a thoroughly reworked fifth-generation Prius that offers significantly more power, improved fuel economy, and new features, including solar panels and additional driver-

That's the new Prius. No. Seriously. This isn't the wrong photo.





REVEALED

assist tech. And most shocking of all for the Prius is the remarkable head-turning design.

The Prius retains its slippery teardrop shape and peaked roofline, but the new model's elegant detailing and athletic proportions make us look back at the previous design and wonder why it didn't always look like this. The car has a whole new stance, two inches lower and about one inch wider. The front end features scooped-out headlights with a C-shaped accent light, while the rear has a full-width LED taillight strip that echoes the one on the new Crown sedan.

The powertrain bumps peak output to between 194 and 220 horsepower, depending on the configuration. That's a considerable uptick from the previous model's wheezy 121 horses. Toyota's claimed 60-mph time for the new Prius, between 6.6 and 7.2 seconds, will make it feel like a Top Fuel dragster compared with the outgoing car and its 10-plus-second runs.

A 2.0-liter inline-four replaces the previous 1.8-liter engine. All models now use a lithium-ion battery pack that's mounted under the rear seat; the old nickel-metal hydride pack found in some previous versions is gone. The all-wheel-drive Prius also swaps its rear-axle-mounted induction-style motor for a new permanent-magnet synchronous unit.

A 194-hp front-wheel-drive setup is standard; all-wheel drive

The new Prius sits lower and wider, with a wedge shape not unlike a nascent supercar's.



The highest trims get a 12.3-inch touchscreen and an optional digital rearview mirror.





A big bump in horsepower means old-Prius drivers will be seeing nothing but these new taillights.

Toyota's rebuttal to the "Nice Prius, said no one ever" bumper sticker.

While base models get 17-inch wheels, the available 19s seen here are standard on upper trims.

adds two horsepower to that total. The front-drive-only Prius Prime tops the lineup with a 220-hp plug-in-hybrid powertrain and a larger lithium-ion battery that promises around 37 miles of electric driving range, a significant increase over the previous Prime's 25 miles.

Toyota also promises an EPA combined estimate of 57 mpg for the base front-wheel-drive LE model. That's 1 mpg better than the figure for the 2022 Prius Eco, although adding all-wheel drive and opting for the XLE and Limited models' larger 19-inch wheels will likely decrease fuel economy.

The Prime doesn't offer much visual differentiation from the standard car (fortunately, they both look good now). As the most powerful Prius, it's pitched as the sporty one and will come in SE, XSE, and XSE Premium trim levels. The standard version will have LE, XLE, and Limited models, just like before.

Lower trims lack power seats, feature a relatively small 8.0-inch touchscreen, and ride on 17-inch wheels. The Limited and XSE Premium models get a 12.3-inch touchscreen, along with a power liftgate and the option of a digital rearview mirror. The Prime will offer solar panels for its roof that juice up the battery while the car is parked. Another option exclusive to the Prime is a Traffic Jam Assist function that allows hands-free driving under certain circumstances at speeds below 25 mph.

We're expecting Toyota to raise the price somewhat on the Prius, but the base model should still come in under \$30,000. Top versions will likely exceed \$40,000—maybe that's not too much to ask given the Prius's newfound swiftness, high-end features, and, most of all, undeniable curb appeal.

EVOLUTION OF THE PRIUS FAMILY

Toyota and Honda both claim to have invented the hybrid, but the Prius inarguably popularized the idea. We look back at multiple generations and offshoots in this Prius family tree. (We've included the retroactively adjusted EPA mpg figures when applicable.)



FIRST GENERATION:
2001-03
41 mpg combined



SECOND GENERATION:
2004-09
46 mpg combined



THIRD GENERATION:
2010-15
48 mpg combined



PRIUS V: 2012-17
41 mpg combined



PRIUS PLUG-IN:
2012-15
11 miles of electric range



PRIUS C: 2012-19
46-50 mpg combined



FOURTH GENERATION:
2016-22
52 mpg combined



PRIUS PRIME: 2017-22
25 miles of electric range

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While this region's roads are all overwhelmingly excellent, it wouldn't be a trip to the Smokies without an early morning run down the **Tail of The Dragon to Cherohala Skyway**, perhaps some of America's most famous and legendary driving roads.

Don't miss this adventure of a lifetime to join *Road & Track* editors, special guests, and dozens of other enthusiasts (a.k.a. your new best friends), so apply today before it's too late.

Please note: dates and itinerary details are subject to change.



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DRIVE-THROUGH

~ By Mike Duff

THE CAR: BENTLEY CONTINENTAL GT

Aristocratic without Lambo flash, the Continental GT earns more respect from London's van and truck drivers than a supercar, and it's more comfortable.

London

Wrong side of the road, right good time.

→ London is a tourist's delight, but we aren't just any old travelers. Send the rest of the family on the "Palaces and Parliament" walking tour. We're going to drive.

ACE CAFE: Located on the North Circular orbital road in Wembley, the Ace became a popular hangout in the '50s and '60s for youthful motorcycle gangs (think the Who's *Quadrophenia*). Motorcycles congregate there, but cars are welcome too. The Ace does a superb breakfast; order the bubble and squeak.

TOWER BRIDGE: Next to the Tower of London, this neo-Gothic Victorian suspension bridge is one of the few places where vehicles can cross the river Thames without paying the congestion charge. It is often gridlocked, but the views from the queues are spectacular.

KNIGHTSBRIDGE: London is a terrible place to drive, but it has plenty of exotics. Go car spotting in the Knightsbridge area around the pricey Harrods department store. For window shopping, visit Jack Barclay Bentley nearby.

"TAXI!": All of London's 20,000 or so licensed taxi drivers have passed a test called The Knowledge, which requires them to memorize the city's layout. Every cabby can tell you 221B Baker Street doesn't exist.

MERCEDES-BENZ WORLD: Head to the 'burbs to scope out a collection of Formula 1 cars or drive a modern AMG on the original Brooklands circuit. Across the way is the Brooklands Museum.



1.

A40 WESTWAY: Once unofficially known as London's autobahn, this elevated multilane highway was formerly the site of night races. Nowadays, speed cameras police its 30-mph limit 24 hours a day, but you can easily imagine the illicit thrills as you cruise.

2.

MINI SAFARI: Small Car Big City rents original Minis fitted with rally lights, racing stripes, and paint schemes inspired by the ones in *The Italian Job*. Dinky dimensions make the cars easy to maneuver, particularly for those not used to driving on the left side of the road.

3.

LONDON TRANSPORT MUSEUM: London's famous double-decker buses, traditional black-cab taxis, and Tube trains are celebrated in this centrally located museum near Covent Garden. Do you think calling London's subway the Tube was decided at a pub?

4.

TUNNELS: The so-called tunnel run is a modern London gearhead tradition. Here, motorists brave numerous speed cameras and race through the Blackwall and Limehouse Link tunnels, which echo with wonderful noises on Friday and Saturday nights.



Inner London is an Ultra Low Emission Zone (ULEZ), meaning drivers operating noncompliant cars must pay a roughly \$15 daily tariff. Anything produced since 2016 should be exempt, even the scuzziest rental car. Within the ULEZ is a congestion-charge zone, where all drivers pay a daily fee of about \$18.

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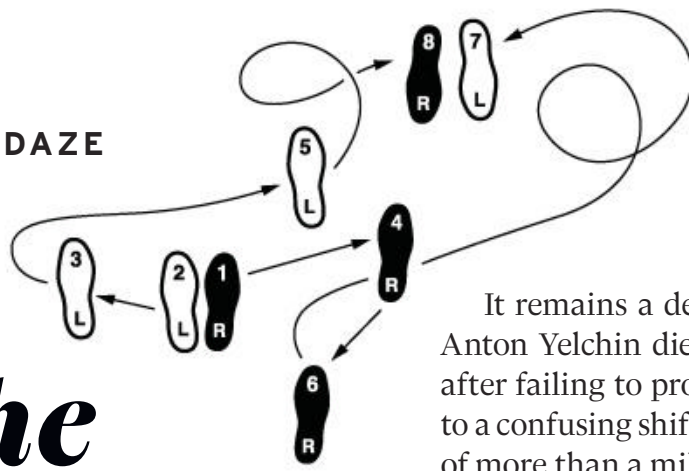


LEARN MORE



DANCE-HALL DAZE

~ By Steven Ewing



What the P-R-N-D-L?

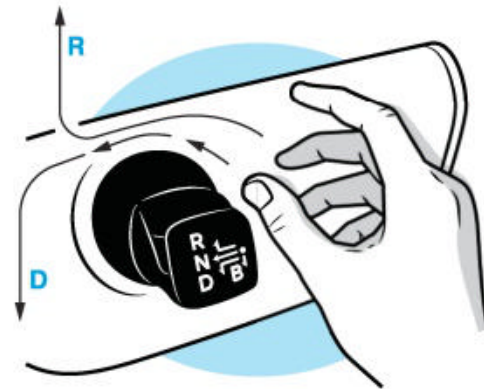
The shift happening in automatics.

➔ **Back when cars** only had three manual speeds and reverse, the possibility of mixing up the gears was minimal. At least you had a one-in-four chance of getting it right. But after the popularization of the automatic transmission in the 1950s, the controls for gear selection became a question of both design and ergonomics.

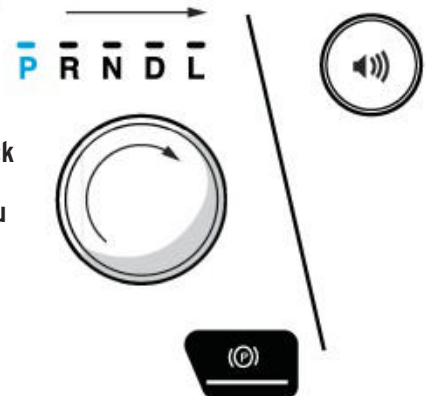
In 1971, the Department of Transportation mandated automatics use the PRNDL—say “prindle”—layout. The impetus of this law, like so many automotive regulations, stemmed from the 1965 book *Unsafe at Any Speed*, in which Ralph Nader called out General Motors, Studebaker, and Rambler for using confusing transmission designs that put Reverse after Drive. Nader cited crashes resulting from drivers missing the intended gear and accelerating in the wrong direction. The PNDLR pattern was dangerous, he asserted. Plus, it’s not nearly as fun to say.

It remains a debate today. In 2016, *Star Trek* actor Anton Yelchin died when he was crushed by his Jeep after failing to properly secure the vehicle in Park due to a confusing shifter design. The accident led to a recall of more than a million vehicles and installation of software that put them in Park when the driver’s door was opened. Eventually, then parent Fiat Chrysler Automobiles redesigned affected models to incorporate shifters with a traditional PRNDL feel.

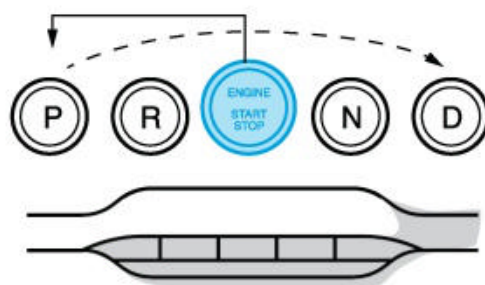
Despite the seemingly obvious driver benefit of keeping shift patterns consistent across cars and brands, designers just can’t stop playing with their alphabet soup. These days, the mechanical connections that once limited how wacky a company could get with its shifter are gone, and shift-by-wire gear selectors give automakers additional interior-design flexibility since there’s no physical link between the shifter and the transmission. But freedom means PRNDL is sometimes scattered like a dropped rack of Scrabble tiles. The result is some strange configurations, like these.



The Toyota Prius has a mini shifter that moves over and up for Reverse and over and down for Drive. Toyota engineers must know that the oddball arrangement can inadvertently lead to selecting the wrong gear, because when you shift into Reverse, the dash starts beeping like a box truck.



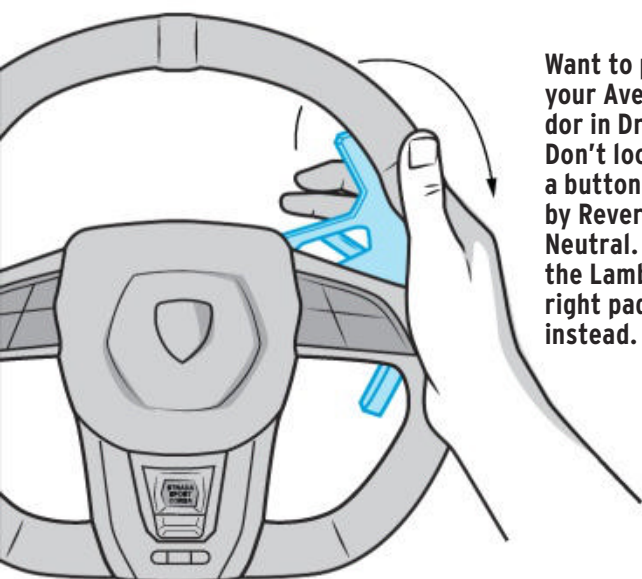
Ram puts a small transmission dial on the center stack near the volume knob. Be sure to look twice when you go to crank up the tunes.



Aston Martin has a pretty simple arrangement of PRND buttons, with one confusing exception: The engine ignition button is smack-dab in the middle.

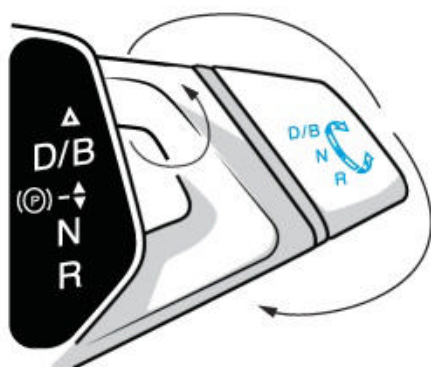


BMW used to sell M cars with a shifter that didn’t have Park. You had to leave the vehicle in Reverse—which was up and to the left—or Drive when you shut off the engine.



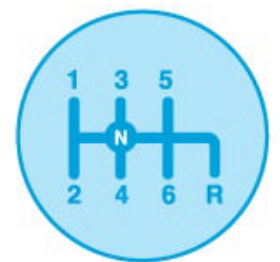
Want to put your Aventura in Drive? Don’t look for a button down by Reverse and Neutral. Pull the Lambo’s right paddle instead.

The Volkswagen ID.4 has a large toggle mounted to its gauge cluster. You have to reach around the steering wheel to get it, and you can’t see the shifter, because the wheel is in the way.



SAVE THE MANUALS

We have to point out that you can skip this madness with a manual transmission, which uses the same pattern it always has. Though, wait, which side is Reverse on again, and is first gear a dogleg?





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ROUGHING IT ~ By Austin Irwin

Roamin' Holiday

Bug out like a billionaire.

→ If you sent a four-wheel-drive Ford F-550 Lariat to boot camp, it would emerge as an EarthRoamer LTi. The EarthRoamer is the Jason Momoa of RVs, large and chiseled—fun fact, the beefy *Aquaman* star owns one. Built in Dacono, Colorado, amid a landscape of mountains and off-road trails, this glampsite on wheels can cover thousands of miles over whatever terrain a 29-foot-long, eight-foot-wide machine can navigate. It's got an equipment list as long as the Colorado River and a starting price (\$695,000) to match its massive footprint. Here's what makes the EarthRoamer LTi the king of the hill.

PRICE AS CONFIGURED
\$837,597

C/D FUEL ECONOMY
Observed: 9 mpg



HOME SWEET HOME

The kitchen is nice enough for HGTV. Magnetized drawers prevent the Shun knives from rattling, while plates fit snugly in Charcoal Oak cabinets. Scratch-resistant dual-pane windows muffle the hoots and coyote yodels of the wild night, and the LTi's available GOST security system and FLIR infrared camera add another level of comfort to those wary of killer fauna. With the click of a button, the security system can lock the doors, roll up the awning, retract the stairs, and turn on every LED light. Just try to blow this house down, big bad wolves.



BIG FEET
Forty-three-inch Goodyear G275 MSA rubber wraps Hutchinson 20-inch military-spec wheels designed to survive mine detonation. Double-beadlock rims keep the enormous tires from wandering off during aired-down driving.



CATCHING RAYS

Four 330-watt solar panels feed and charge an 11.0-kWh lithium-ion battery that powers the refrigerator, stove, and LED lighting (including in the optional wine cabinet) when the turbo-diesel V-8 isn't running.

SUPERSIZE ME

A four-wheel-drive Ford F-550 Lariat dually chassis cab supports this off-road fortress. The frame is extended 40 inches and reinforced for increased strength. The rear axle is converted to a single-wheel, and EarthRoamer's camper mount—a novel pivoting design—moves separately from the cab. Remote reservoir dampers are standard, as are air springs and heavy-duty anti-roll bars.

NO PROPANE

EarthRoamer prides itself on self-sustainability (not to be confused with sustainability, as the LTi weighs around 17,000 pounds). The Ford-stock 330-hp turbo-diesel 6.7-liter V-8's coolant circuit provides heat for the camper and water. When the 6.5-gallon hot-water tank's heat energy is depleted, an additional diesel-fueled heater kicks in.

CARBON-FIBER TENT

EarthRoamer's camper shell is made of layers of foam surrounded by carbon fiber, sort of like a campfire s'more. The X-Guard paint—closer to bed liner than clear-coat—on the LTi we drove was the color of a Coleman stove and added \$12,000 to the build. Scrapes from tree branches easily scrub away at the local carwash.



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The Fifth C?

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Color	"D" Colorless	"D" Colorless
Clarity	"IF"	Clear
Dispersion/Fire	0.044	0.066
2½ ctw ring	\$60,000+	\$39

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Wisdom of the Crowd

By rigorously observing my fellow drivers, I've learned a bunch of new tricks that help me every time I get behind the wheel.

Perhaps you've heard the term "crowd-sourcing." That's when ideas are solicited from a teeming mob rather than a small cadre of so-called experts, often generating surprising results. Consider the Volkswagen Tiguan. No, not the car itself, which highly trained engineers designed, but its name—a mashup of "tiger" and "iguana." Thanks, crowd!

Lately, I've been thinking about how I could apply the wisdom of the masses to my driving. Is it possible that my personal habits and techniques could be improved by crowd-sourcing? Perhaps. So I decided to pay extra attention to my fellow drivers and see whether I could learn anything from the licensed citizenry as a whole. Like Tesla's Full Self-Driving system (perpetually in beta testing), I'd assimilate their insights and experience to make my own driving super-duper great. Here's some of what I've learned.

For starters, if you're unsure where you're going, no worries! Just drive real slow, your car wandering across the lane

like a two-ton divining rod, until you figure out that maybe the address you're looking for was a block back. Then slam on the brakes and make a 16-point turn right there rather than, say, continuing to the next side street or crossroad.

Speaking of crossroads, everybody loves a surprise, so don't use your turn signal. And when you arrive at an intersection where the rightmost lane is for turning or going straight, make sure you're going straight so the right-on-red crew behind you gets a nice chance to relax and take a couple of minutes off from the stress of piloting a moving vehicle. They're probably back there thanking you for the respite.

If you see someone getting ready to parallel-park—pulling up just past an empty space, with their turn signal indicating their intention to reverse into said space—drive right up on their bumper. Remember, nature abhors a vacuum.

When you're driving on a two-lane road with a 55-mph speed limit, take the corners (however gradual) at 47 mph. But as soon as there's a passing zone, speed up to 70. If someone still manages to pass you, tailgate them for a half-mile afterward, as if that's how fast you like to drive all the time. Then gradually fade back into whatever 47-mph reverie you were in before a two-lane pass annihilated your fragile ego.

When following at night, make sure to position your car slightly to the left of the vehicle in front of you. That way, your headlights can shine directly at their driver's side-view mirror, helpfully throwing around lots of extra light for everyone. Remember, sharing is caring!

Sometimes on the highway, two lanes will merge down to one, and you may notice other drivers forming a single-file line well ahead of the point where the pavement ends. These people are called suckers, and you should take advantage of them by driving as far as your lane will take you, even if it means going up on two wheels like you're an understudy in Nitro Circus. Don't worry—the other drivers will understand that your time is very valuable and may even give you a friendly honk or wave of encouragement as you cut in at the front.

Eventually, you'll reach your destination and need to park. In the course of finding a spot, be willing to drive around for a half-hour to avoid walking an extra 20 seconds. And when you come to a space marked with a C, ask yourself whether it stands for compact or Chevy Silverado 3500 Duramax dually, which is what you're driving. There's only one way to find out: Wedge your truck in between a Geo Metro and a Mitsubishi Mirage G4. Then climb out the sun-roof, put on your Oakleys, and pat yourself on the back for another fine episode of driving. 🇺🇸



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The Perfect Line of Code

Are autonomous-vehicle engineers the enemies of driving enthusiasts, or can we share the road and the track?

There is only one question on the FAQ page for the Self Racing Cars (SRC) website: “Why would I come watch this? It seems boring.” I kinda thought the same when I was invited to see the SRC group at WeatherTech Raceway Laguna Seca. Why would I watch that? But the SRC event coincided with the Velocity Invitational, a gathering of vintage race cars that sounded very not boring, so I headed to Monterey to see what line self-driving race cars take in the Corkscrew.

Backward is the answer, at least for the Lexus CT that Point One Navigation brought out. The red hatchback ran the course in reverse—and in Reverse. “Our test driver says it was faster than he was,” says Daniel Gruver, director of product for Point One. Well, sure, the camera-rigged CT has eyes in the back of its head and no sense of how wrong it feels to head up Laguna’s famous hill taillights-first.

Turns out the racing part of SRC is a bit of a misnomer, or, as SRC founder Joshua Schachter says, “aspirational.”

Schachter organized SRC as a competition not of driving but of engineering, a chance for developers and others working in the autonomous field to collaborate and test in a place free of cross-traffic. Some cars steered themselves, others worked via remote control, and some were human driven as they gathered data for future projects. One SRC “racer” was an engineer playing with autonomy on his personal Porsche 911 GT3 for reasons he didn’t want to talk about. “It’s not ready yet,” his pal told me.

As we keep hearing, most autonomy isn’t ready for the road or even the road course. Self-driving cars aren’t at a place where they can rip around a track, actively blocking and making split-second decisions to skip the apex and ride the wall like NASCAR driver Ross Chastain did back in October. “Racing dynamically is a lot to instrument,” Gruver says. “Humans are very good at this.” Most SRC machines depend on a human driver to map out the line, and the challenge is combining software and hardware to make the most of that mapping. For Point One, the mapping is, uh, point one, as the company specializes in highly accurate navigation systems. Testing on track is a good way to see how well its programs can recognize a coordinate down to a few centimeters. “Normal GPS accuracy is maybe three meters,” Gruver says. That could put you 10 feet off the racing line. Point One is working on getting its maps within three centimeters.

Ain McKendrick, CEO of Faction Technology, is working on small, driverless EVs for use as remote-operated delivery vehicles. “Sitting in traffic to return a rental car at the airport or delivering DoorDash—that’s not driving anyone is excited to do. Plus, a robot won’t eat your fries.” He says several exotic-hypercar companies have also expressed interest in Faction’s tech. “For a performance car, it can reposition it in a garage or show you a [better] line on track. Once you have a digital car, the possibilities are pretty vast.”

A very analog 1971 Mini Cooper sat a few pit stalls away, its roof all toad bumped with zip-tied cubes and cylinders. Adam Rodnitzky of Tangram Vision uses the Mini—his own—as a rolling test bed to verify the company’s software. It stitches information from the roof-mounted sensors, including lidar, radar, and 3-D cameras, into a topographical map of the car’s surroundings. Rodnitzky gave me a ride and admits he enjoys these events as an excuse to get on track himself. Many SRC participants are true driving enthusiasts, he says. “We know autonomy is coming, and you can be bitter about it or figure out a way to make it work with what you love.”

Self-racing cars may seem boring, but the people building them definitely aren’t. 🇺🇸

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10Best just turned 40,

and like many 40-year-olds, it's going through a time of reflection and reassessment. 10Best assures us this is not a midlife crisis but an evolution.

For the past few years, we've experimented with allowing trucks and SUVs to claim spots on our list of 10. Combining them grew from a desire to give readers the most complete advice on what to buy and what to lust over. But picking fewer than 10 cars never felt right and led to many intraoffice squabbles. This year, we're separating cars from everything else. It's a move that will give shoppers a more comprehensive look at the entire vehicle landscape while allowing us to celebrate cars that we love. Next month you'll see a 10Best list for trucks and SUVs.

The next 16 pages are a celebration of sedans, hatchbacks, two-seaters, sports cars, and an elec-

tric sports sedan. Much of the list will be familiar to our readers, because 10Best isn't just about what's new this year, it's about the best that's on sale.

A few rules apply, though. Every car on the list has to go on sale by January 31, and as always, we set a price cutoff, not only to remain relevant but with the expectation that an expensive car had better be damn special. Inflation has bumped up the price of a new car, and thus our cutoff to a Chevrolet Corvette Z06—size \$110,000. We assure you that's totally a coincidence.

Car and Driver isn't an autocracy, which is ironic because autos are what we're about. After a week of driving every new car that meets our criteria, we vote on a scale from zero to 100. As in figure skating, we throw out the high and low votes and average the remaining scores. From there, someone with mad Microsoft Excel skills sorts the list, and we have the 10Best cars of 2023. —Tony Quiroga





BMW i4

GOOD NEWS: BMW'S ELECTRIC FUTURE WON'T LEAVE ENTHUSIASTS BEHIND.

During our EV of the Year testing, the BMW i4 M50 was a standout performer that got a lot of buzz.

Mutterings like “I’d take this over many of BMW’s internal-combustion cars” could be overheard throughout the proceedings. But the i4 ultimately didn’t take top honors, partly because we weren’t able to sample the more mainstream single-motor i4 eDrive40 version as well.

The experience nonetheless stoked our enthusiasm, and with both variants present at the 10Best proceedings, you can see we were not disappointed.

The dual-motor M50 is seriously quick, with a 3.3-second dash to 60 mph. But its crushing 30-to-50-mph and 50-to-70-mph rolling-acceleration times of 1.5 and 2.0 seconds, respectively, are what really squeeze the air out of your lungs when you boot it out of corners on the 10Best loop. Beyond that, the i4 M50’s powerful brakes and agile suspension are so expertly tuned, they effectively mask the fact that the battery-powered M50 weighs a portly 5084 pounds. It’s as if BMW reassigned its best engineers to the i4 effort.

The single-motor eDrive40 is no less impressive, as it stands up even better when compared with the rear-drive 430i Gran Coupe, its gasoline-powered equivalent. Here the i4 beats the gasser even more handily across our full range of standing-start and rolling-acceleration tests. It’s also quite balanced, agile, and

rewarding when driven hard, but at the same time, it’s an utterly comfortable and livable daily driver. The eDrive40 also delivers impressive range, with EPA ratings of 301 miles on the standard 18-inch tires and 282 miles on the stickier 19s fitted to our test car. We nearly matched that in our 75-mph highway range test, with a 270-mile result that was, per our process, rounded down to the nearest 10-mile increment.

What both i4s share is the Gran Coupe’s practical four-door hatchback layout, which offers more rear-seat livability and more cargo flexibility than a 3-series





sedan. The impeccably crafted interior is quite comfortable and features a vast curved screen that is functional and intuitive. It's also optional, in case you're not into that kind of thing.

Even against 10Best's more expansive array of mostly internal-combustion vehicles, be they competitors or corporate twins, the BMW i4 stands out. As for EV rivals, it makes the Tesla Model 3 and Model S, in particular, look shockingly crude. And the i4 may just have what it takes to push BMW's enthusiast base to take the plunge and go electric itself. —*Dan Edmunds*

THE NUMBERS

335-hp AC motor, 2 AC motors (536 hp combined); direct-drive, direct-drives
Base: \$56,895-\$68,295

C/D Test Results

60 mph: 3.3-4.8 sec
1/4-Mile: 11.7-13.4 sec
Top Speed: 115-128 mph
Braking, 70-0 mph: 149-169 ft
Roadholding, 300-ft Skidpad: 0.87-0.97 g
EPA Comb/City/Hwy: 80-109/79-109/80-108 mpg

THE NOMINEES ARE ...



Acura Integra
Makes the right statement about Acura, but suffered due to the Civic Si's high level of execution.

—Joe Lorio

So it's a slower Civic Si that's more expensive than the bigger Accord. Why would I buy this?
—Austin Irwin



Audi A3/S3
The S3 is more than a Golf R with a trunk. It's a more refined, classier Golf R with a trunk.
—Rich Ceppos

The A3 is a very boring car. So boring that it doesn't even have interesting flaws.
—Elana Scherr

Audi RS3
There's a lot to like here, but I just stepped out of the GR Corolla, and I'd rather have that.
—Tony Quiroga



Audi e-tron GT
If Audi could bring this experience to a lower income bracket, people would stop complaining about EVs.
—K.C. Colwell



Cadillac CT4-V Blackwing

MISSION FULFILLED.

No matter how often we experience a CT4-V Blackwing, it gets us every time. Credit the crisp manual transmission and resolutely solid brakes. The chassis and steering provide the same level of feedback as a co-driver calling out course notes. For anyone who enjoys driving, it's always a treat to slide behind the wheel of a CT4-V Blackwing.

This is true even when puttering around at a sedate pace. The CT4-V Blackwing is not one of those too-stiff performance cars where you spend the majority of drive time tiptoeing around less-than-perfect roads, waiting for the rare scenario in which it shines. With the possible exception of its big brother, the CT5-V Blackwing, there isn't another car south of \$100,000 with 1.0-g-plus cornering capability that has this much ride compliance. Credit the fast-acting magnetorheological dampers and General Motors' ride and handling engineers, who continue to prove they're some of the best in the business.

From the level of approachability and feedback, you'd never guess that the CT4-V is slightly heavier than the BMW M3. BMW's twin-turbo six also pulls harder than the CT4's. However,



the vocals and responsiveness of the Caddy's V-6 are much improved from the iteration that powered the ATS-V. The great ones are never perfect. The CT4's rear seat is small, and the interior is at least a class below its luxury branding and \$61,890 price point. It has an interior, okay? And even if it didn't, we'd probably still award it 10Best.

No one should need encouragement to choose the manual, but Cadillac is practically begging buyers to go six-speed by adding a steep \$3175 upcharge for the automatic and reserving the 472-hp 3.6-liter V-6's lightweight titanium connecting rods for stick-shift cars only.

That choice is easy. Just don't ask us to pick between this lighter, slightly purer, less expensive, and more modestly powered CT4-V Blackwing and the tire-spinning gorilla that is the CT5-V Blackwing.

Both are on our list, just like last year.

With the Blackwings, Cadillac has overwhelmingly succeeded in the original mission of its V-series cars dating back to the 2004 CTS-V. It has built the world's best sports sedans, beating BMW at the thing that brought the German automaker to prominence decades ago. Although the Blackwings seem to have little relevance to Caddy's promised electric-only future, we don't care. We'll celebrate these dynamic masterpieces long after they cease production, and we suspect the collector market will do the same. —*Dave VanderWerp*

THE NUMBERS

472-hp twin-turbo 3.6-liter V-6; 6-speed manual, 10-speed automatic

Base: \$61,890

C/D Test Results (6-sp man)

60 mph: 4.0 sec

1/4-Mile: 12.4 sec @ 116 mph

Top Speed (mfr's claim):

189 mph

Braking, 70-0 mph: 153 ft

Roadholding,

300-ft Skidpad: 1.01 g

EPA Comb/City/Hwy:

18-19/15-16/23-24 mpg

Cadillac CT5-V Blackwing

FALLING IN LOVE AGAIN.

Winning a 10Best award is difficult. Successfully defending one is even tougher. To remain on the list, a car must provide a superior experience and unequivocally fulfill its mission.

Even before you set it in motion, Cadillac's CT5-V Blackwing struts like a winner. The 668-hp supercharged 6.2-liter V-8 puffs its chest as if it's in a Corvette, because in a different life it was. Considering that GM plans to make its light-duty fleet fully electric by 2035, it's hard to believe the company builds a supersedan that guzzles 13 mpg city and 21 highway.

The version with the 10-speed automatic does get marginally better fuel economy, but the manual costs \$3175 less, which will buy a lot of 93 octane. If your left leg isn't strong enough to squeeze a

clutch coddling 659 pound-feet, buy a gym membership with the savings. Manual buyers get a Tremec TR-6060 that moves through the gears with an impossible smoothness and lightness. Shift-it-yourselfers don't give up much to the automatic in terms of straight-line performance. The six-speed's no-lift-shift function means you can keep your right foot pinned to the floor. Nail the hole shot and the six-speed CT5-V Blackwing hurls itself to 60 mph in 3.6 seconds and erases the quarter-mile in 11.6 seconds, only 0.1 and 0.2 second behind the automatic, respectively.

The Blackwing's greatness extends beyond the drag strip. Its steering is direct, and there's honest feedback as the chassis moves in and out of corners. For those not accustomed to the art of heel-and-toe downshifting, the rev-matching programming works flawlessly, giving you the perceived toe-tapping skills of Arthur Murray. Consistent and satisfying primary controls engender a close bond

with the driver, a level of intimacy typically reserved for sports cars.

When the Blackwing isn't flinging itself off FIA curbing or tearing up NHRA events, it calms down for daily use. GM's magnetorheological dampers carpet the road. The fuel bill is large, and the interior design is something we've come to refer to as Chevy Malibu-plus. We're willing to look past these shortcomings not because love is blind, but because the Cadillac CT5-V Blackwing is the greatest sports sedan on sale today, if not of all time.

—David Beard

THE NUMBERS

—
668-hp supercharged 6.2-liter V-8; 6-speed manual, 10-speed automatic

Base: \$92,390

C/D Test Results

60 mph: 3.5-3.6 sec

1/4-Mile: 11.4-11.6 sec

Top Speed (C/D est):

209 mph

Braking, 70-0 mph:

143-154 ft

Roadholding,

300-ft Skidpad: 1.01-1.02 g

EPA Comb/City/Hwy:

15-16/13/21 mpg





THE NOMINEES ARE ...



BMW M240i

It's hard to pinpoint, but something is missing. It lacks a spark of joy.

—Quiroga

Fast and sure-footed, but its character is missing that famous BMW litheness. As a result, it feels a little disconnected from the brand.

—Drew Dorian



BMW 230i

Long past are the days when a BMW coupe could be counted on to have exemplary steering feel and response.

—Lorio



Chevrolet Bolt EV

For city dwellers, this is the car no one wants but everybody needs.

—Carlos Lago

Chevrolet Corvette

THE AMERICAN ICON.

The best cars are often narrowly focused—on cossetting luxury, or ferocious performance, or utter practicality.

Set too many goals and it's easy to arrive at forgettable mediocrity. The Chevrolet Corvette, however, defies the notion that you can't please everyone. It's a sophisticated grand tourer, a hard-edged track rat, an everyday grocery getter with dual trunks. It's a targa or a convertible, relatively attainable or knocking on the upper cap of our 10Best price limit. Throw on winter tires and it's completely usable year-round, wherever you live. And although it's been three years since the mid-engine Corvette hit the streets, it still turns heads. Seeing one is an event, even now.

The Corvette team hasn't rested on its laurels, either, as evidenced by the spectacular new Z06. That audacious halo car is like nothing else you can buy, at any price, with its daring flat-plane 5.5-liter V-8 shrieking out 670 of the loudest horsepower this side of Circuit de la Sarthe. It's almost hard to believe that the Z06, a track-focused monster, can tone down its act and behave civilly around town. But it can, smoothly shuffling gears and speaking with its indoor voice until it's time to unleash hell with one of the more bombastic drive modes.



The same goes for the Stingray, which remains one of the great performance bargains in the world, a spectacular supercar in its own right. There are no duds in the lineup, with the Stingray convertible—traditionally, the boulevard-cruiser Corvette setup—hitting 60 mph in 2.9 seconds and stopping from 70 mph in 147 feet on, get this, all-season tires. Move up to a Stingray coupe with the Z51 package, and 2.8-second blasts to 60 are yours.



The 10Best evaluation process naturally selects for strong flavors, the drives you can't get out of your mind. And cars like that can also tend to evoke polarized opinions. But the Corvette is a rare machine that seems to generate near-universal acclaim. Critics like us love it for the driving experience and performance. Corvette fans love it because it's the ultimate realization of their favorite car. People who've never had any interest in Cor-

vettes suddenly find that they do now because this one is so different from all that came before. Teenagers see it and give it the index-finger twirl, the universally understood gesture for "light 'em up."

Traditionally, Corvettes always had a weak spot, be it a cheesy interior or poor build quality. The latest simply don't have any glaring flaws. But please, throw us the keys, and we'll be happy to keep looking. —*Ezra Dyer*

THE NUMBERS

—
490- or 495-hp 6.2-liter V-8,
670-hp 5.5-liter V-8; 8-speed
dual-clutch automatic

Base: \$65,895-\$109,295

C/D Test Results (Z06 w/Z07)

60 mph: 2.6 sec

1/4-Mile: 10.5 sec @ 131 mph

Top Speed (mfr's claim):

189 mph

Braking, 70-0 mph: 139 ft

Roadholding,

300-ft Skidpad: 1.16 g

EPA Comb/City/Hwy:

14-19/12-16/19-24 mpg



Honda Accord

WE STILL LOVE IT, BUT HONDA'S MAKING US THINK MORE ABOUT IT.

What's the old saying? Nothing is certain but death, taxes, and the Accord making C/D's 10Best list? This year is a little different in that Honda is shaking up its offering with the 11th-generation model. Our favored powertrain, the turbo 2.0-liter paired with a 10-speed auto, is dropped from the lineup. For 2023, you get a turbo-charged 1.5-liter paired with a continuously variable automatic transmission or the hybrid. That's it.

On paper, the new Accord looks like much less of a contender without the blue-chip enthusiast bent of the 2.0-liter combo. We barely got over the Accord dropping the manual transmission following the 2020 model year. In both cases, Honda couldn't make a business case to keep them, so tough love it is. Flirting with single-digit take rates will do that.

As 10Best jurors, we equally weigh value, mission fulfillment, and fun. Seeing as the Accord costs about as much as the outgoing model and the 204-hp Hybrid is targeting 46 to 47 mpg combined (we expect the 1.5-liter powertrain to deliver 32 mpg combined), we can't really knock it there. Mission fulfillment, too, is above reproach. With a spacious back seat



and a cavernous trunk, it serves well as comfortable transportation for five adults. There aren't many family sedans left, let alone one that can garner all the aforementioned praise.

Here's where the on-paper analysis gets crumpled up in a ball: The new 11th-generation Accord remains fun to drive. Even the Hybrid is fun. You can still enjoy hustling it down a country road. It might not be as exhilarating as the old 2.0, but it's still plenty capable. Passengers might even believe the hybrid transaxle has some actual gears it's changing, but it doesn't.

The fact is, you can feel the award-winning richness of the Accord before you even leave the parking lot. It's smooth, quiet, refined to the nth degree, and good-looking. It doesn't just feel expensive, it looks the part now too.

THE NUMBERS

192-hp turbo 1.5-liter inline-4, 145-hp 2.0-liter inline-4 + 2 AC motors (204 hp combined); continuously variable automatic, direct-drive

Base (C/D est):
\$29,000-\$34,000

Performance (C/D est)

60 mph: 6.7-7.2 sec

1/4-Mile: 15.1-15.7 sec

Top Speed: 115 mph

EPA Fuel Economy (C/D est)

Comb/City/Hwy:

32-47/29-48/35-47 mpg



Honda Civic

AFFORDABLE, FUN, AND SURPRISINGLY SOPHISTICATED.

The Honda Civic satisfies a wide range of needs. Looking for a thrifty highway commuter? The EPA says it'll do 42 mpg. Fancy a bit of extra space? The hatchback fits up to 18 carry-on suitcases, which is small-SUV territory. It comes standard with lots of modern conveniences and safety features, and the higher trims feature near-luxury-car equipment levels.

If this sounds very rational, you've got the right idea. But if your estimation stops there, you've missed what makes the Civic great.

The reason the entire Civic lineup wins 10Best is because even the most sensible models—the base Sport sedan and hatchback—are a joy to drive, with balanced chassis, refined road manners, and accurate steering. While the 158-hp 2.0-liter inline-four is sluggish, the optional 180-hp turbo 1.5-liter four satisfies. Even the CVT is far from offensive, limiting engine drone to when you mat the throttle. Plus, Honda offers a six-speed manual in the hatchback.

Its well-dressed interior punches well above its sub-\$30,000 base price with attractive materials and exemplary ergonomics. The exterior's clean lines mean you won't be embarrassed to be seen in a Civic.

The performance-oriented Si and Type R tickle our emotional nerve center. The redesigned 315-hp Type R is the hot new addition to the 2023 lineup. That's good enough to get it to 60 mph in 4.9 seconds, and it's a riot on the track as well. The Si is less powerful, with just 200 horses, but its lightning-quick responses make it a blast.

Both the Type R and the Si are offered only with a six-speed manual. These are "if you know, you know" kinds of cars. But the best thing about the Civic is its affordability across its range means more drivers can join in on the fun. —Joey Capparella

THE NUMBERS

158-hp 2.0-liter inline-4,
180- or 200-hp turbo 1.5-liter
inline-4, 315-hp turbo 2.0-liter
inline-4; 6-speed manual,
continuously variable
automatic

Base: \$25,745-\$43,990

C/D Test Results

60 mph: 4.9-8.8 sec

1/4-Mile: 13.5-16.9 sec

Top Speed (C/D est):

125-169 mph

Braking, 70-0 mph: 153-176 ft

Roadholding,

300-ft Skidpad: 0.86-1.02 g

EPA Comb/City/Hwy:

24-36/22-33/28-42 mpg

Much of the Accord's structure carries over from the last generation. It gets a small increase in chassis stiffness and strength but nothing revolutionary. For the screen-centric, the hybrids get a thin-framed 12.3-inch touchscreen. Honda ditched native navigation for the whole line because it realized its customers use their phones. Touring models get Google Built-In with a yet-to-be-determined number of months included with purchase. Sign in to a Google account, and your Google history will be in the car. That is if you have a Google account. Or just stick with Apple CarPlay. To us it's still the best, just like the Accord.

—K.C. Colwell



10

Porsche 718 Boxster/ Cayman

A DRIVING EXPERIENCE STRIPPED
DOWN TO THE BASIC ELEMENTS.

We would never forgive this in any other car. The screen is tiny, the cargo room is stingy, backup cameras are grainy, and the cupholders are functionally nonexistent. Yet it's worth spilling coffee on your best pants for a chance to commute in any of Porsche's 718 variants. Piloting a Cayman or a Boxster resets everything you thought you knew about cars, giving you a perfect baseline. This is how it should always feel from the driver's seat. We



don't care that there's no massage option and the gauges aren't digital and customizable. We're here because we love driving, and so does the 718.

With the bump in spending power for this year's 10Best, we are finally able to include almost every 718 variant, from the base turbo flat-four up to the Cayman GT4, the lightweight 718 Spyder, and the kick-up-the-revs Boxster and Cayman GTS 4.0. The \$150,550 GT4 RS remains out of contention, but we have plenty to love.



Like the Honda Civic, it's a car that can delight all the way up and down its trim and options sheet. The flat-four doesn't kick or sing with the force of the 4.0-liter six, but the four-banger will yowl if you step on its tail. And it's no slowpoke. The Cayman T hits 60 mph in just 4.4 seconds. The automatic Cayman GT4 can do it in 3.3.

It's not just good engine choices; there's no wrong combination on the 718's order form. We're still old-school enough to prefer a stick, and the manual couldn't be better: short throws and clean clicks matched to a clutch that offers feedback all through its arc while still being light enough for stop-and-go commutes. For those more accepting of technological advancement, the dual-clutch automatic is quick as a shooting star and never busy or abrupt. The 718 handles so well that your time on the brakes will be limited—just turn in and drive through. When you do need to stop, you'll find the brake pedal firm and even, no matter which rotor and caliper configuration is optioned. Somehow, Porsche has figured out how to send feedback through the electrically assisted steering rack in a way that communicates the smallest change in topography to your hands even as the chassis travels over it unbothered.

Most modern cars are designed under the assumption that we're all plodding along like geese in formation, to the pond and back, needing downy-soft comfort and constant connection to the world outside as we honk our way through life. Not so this Porsche. The 718 is a hummingbird: light, focused, and sparkling, a joy to behold.
—Elana Scherr

THE NUMBERS

300-hp turbo 2.0-liter flat-4,
350-hp turbo 2.5-liter flat-4,
394-hp or 414-hp 4.0-liter
flat-6; 6-speed manual,
7-speed dual-clutch automatic
Base: \$64,850-\$107,950

C/D Test Results

60 mph: 3.3-4.4 sec
1/4-Mile: 11.6-13.0 sec
Top Speed: 170-189 mph
Braking, 70-0 mph: 141-149 ft
Roadholding,
300-ft Skidpad: 1.01-1.10 g
EPA Fuel Economy
Comb/City/Hwy:
19-24/17-21/23-27 mpg

THE NOMINEES ARE ...



Genesis Electrified G80

A nice job integrating an EV powertrain while maintaining the poised demeanor of the G80. —Joey Capparella



Genesis G90

So smooth and luxurious, and the interior has the right blend of technology and elegance. —Dan Edmunds



Hyundai Elantra N

Easily one of the best-sounding, rowdiest fours in recent memory. —Jacob Kurowicki

One doesn't think of Hyundai as a trouble-maker's brand, but the Elantra N is like a juvenile delinquent your mom doesn't want you to hang out with. —Scherr



Mercedes-Benz EQE350

A well-executed luxury transportation appliance with an unimaginative shape and entirely adequate performance. —John Voelcker



THE NOMINEES ARE...



Mercedes-Benz EQS450

*This car is
a mess,
stylistically,
dynamically,
and
strategically.*
—Capparella



Mercedes-Benz C300

*Worst brake-
pedal feel in a
new car in at
least a decade.*
—Dave
VanderWerp

*I didn't find
much joy behind
the wheel, but I
still luxuriated
in the comfort-
able seats and
grooved to the
rockin' stereo.*
—Eric Stafford



Nissan Z

*As disappointing
to drive as it is
great to look at.*
—Lago

*Fun in a vac-
uum, but com-
pared with the
field, it feels
dated and unre-
fined.* —Stafford

Subaru BRZ and Toyota GR86

WHEN BARELY ANYTHING IS ENOUGH.

Inflation is a fact of life, and cars are central to the phenomenon. Besides the obvious boost in prices, we see it in performance and capability too. Remember when 228 horsepower was a big deal, the stuff of V-8 Mustangs and Porsche 911s? Now 600 horsepower almost seems normal, and with it comes a spiral of more: more weight, more money, more digital nannies to keep it all on the road. That's why the Subaru BRZ and Toyota GR86 are so refreshing. These cars are built not for bragging rights but to entertain the human behind the wheel. They embrace the concept of enough, drawing attention to the space left unfilled by extra pounds and a daunting monthly payment. They're utterly wonderful.

And, we might add, it's not like we're talking about slow cars that won us over with their styling or great handling (although they did that too). The Subaru-based naturally aspirated 2.4-liter flat-four is gloriously rev-happy, making its 228 horsepower at 7000 rpm but still offering a chunky 184 pound-feet of torque at 3700 rpm. Pitted against a mere 2843 pounds

of weight in the Subaru BRZ Limited, that's enough oomph to deliver a 5.4-second run to 60 mph and a 13.9-second quarter-mile at 101 mph. With rear-wheel drive, a standard six-speed manual transmission, and a limited-slip differential, the BRZ and GR86 have all the right ingredients for a rollicking good time. And they deliver with a delightfully direct shifter and a chassis that you can steer with the throttle and brakes as well as the steering wheel. They are basically Porsche Cayman S performance models circa 2007 but for about half the price and with tiny but usable back seats.

They look the part too. The GR86, with its Toyota badges, is sometimes mistaken for a Supra, especially when it's painted bright Neptune blue. The Toyota and Subaru twins eschew big wings and splashy graphics for a purposeful, tightly wrapped rear-drive aesthetic. They look fast but respectable, which can be a tough trick to execute, especially for a small sports car.

Yes, the interior is a little basic, with decidedly eight-bit graphics for the instrument cluster and center touchscreen. And of course, we daydream about the antics that might ensue with the arrival of a turbocharger and, say, 300 horsepower.

But a fancier interior might raise the base price, which stubbornly remains below \$30,000. And more power would mean a beefier drivetrain, bigger wheels and tires, and additional weight. All of those things lead away from the reasons these cars are so great—they're light, sharp, unfiltered, and inexpensive. Long may they remain so. We don't need anything more. —Ezra Dyer

THE NUMBERS

228-hp 2.4-liter flat-4; 6-speed manual, 6-speed automatic

Base: \$28,995-\$29,615

C/D Test Results

60 mph: 5.4-6.3 sec

1/4-Mile: 13.9-14.8 sec

Top Speed (mfr's claim):

134-140 mph

Braking, 70-0 mph: 152-167 ft

Roadholding, 300-ft Skidpad:

0.89-0.99 g

EPA Fuel Economy

Comb/City/Hwy:

22-25/20-21/27-31 mpg





Toyota GR Corolla

TURBO PUNCH, ALL-WHEEL-DRIVE TRACTION, AND A HANDLING BALANCE SUBLIME ENOUGH TO TURN YOU FINNISH.

Our fact-checkers have emerged, coughing, from the dusty depths of the office archive with confirmation that the GR is the first Toyota Corolla ever to make its way onto a 10Best list. This is no ordinary Corolla.

The GR looks, drives, and often sounds like the rally replica it's not—Toyota's current World Rally Championship competitor is a hybridized Yaris. Despite that, the GR Corolla possesses an abundance of the spirit we loved in such stage-honed specials as the Subaru WRX and Mitsubishi Evo.

While 300 horsepower might not be exceptional for a modern hot hatchback, the GR's way of generating it is. The big output comes from a tiny engine, a 1.6-liter inline-three with a turbocharger capable of making up to 26.3 psi of boost. This gives an entirely unsurprising amount of low-down lag but also huge midrange punch. The triple's thrumming, offbeat exhaust note is overlaid by induction whoosh and wastegate flutter. The close-ratio six-speed manual gearbox's crisp action encourages frequent shifting, and the adjustable torque split is another compelling part of the package. It can be a 60/40 front-to-rear split, a fixed 50/50, or a rear-biased 30/70, which we soon started to think of as "party mode."

There are multiple ways to push the GR hard, and it seems to like all of them. You can treat it like a front-drive hot hatch, powering into a turn and then, as the front tires start to nudge wide, easing off the throttle to bring it back to neutrality—or lift off more aggressively to tip the rear into over-

steer. Alternatively, select 30/70 and the punchiest Track mode, go into a corner slower, then use the gas to adjust cornering attitude like a rear-driver. Or find a slow, greasy corner and unleash your inner Juha Kankkunen with a Scandinavian flick, swinging the tail like a pendulum. The GR plays along with each approach. And although some of us preferred the Honda Civic Type R's more direct and feedback-rich steering, the Toyota can still be placed with something close to millimetric precision.

Yet another part of the GR's appeal is the fact it's a Corolla, making it nearly as practical as its dowdier siblings. This four-door hatchback has the ability to



accommodate adults front and rear suitably well, with microfiber-clad bucket seats that stay comfortable over longer stints and impressively high cruising refinement. It will talk to your phone, carry your shopping bags, and even deliver admirable gas mileage between life-affirming hits of speed.

While the GR Supra and GR86 that also make this year's list are co-productions (with BMW and Subaru, respectively), the GR Corolla is all Toyota—proof that the company still knows how to make a true performance car all on its own. The wait for an exciting Corolla has been a long one, but the GR made it worthwhile. —Mike Duffäkkinen

THE NUMBERS

—
300-hp turbo 1.6-liter inline-3;
6-speed manual
Base: \$36,995
C/D Test Results (Circuit)
60 mph: 4.9 sec
1/4-Mile: 13.3 sec @ 105 mph
Top Speed: 143 mph
Braking, 70–0 mph: 167 ft
Roadholding,
300-ft Skidpad: 0.94 g
EPA Fuel Economy
(mfr's est) Comb/City/Hwy:
24/21/28 mpg

THE NOMINEES ARE ...



Porsche Taycan 4S Cross Turismo

*Looks like a shoe,
feels like a sports
car. —Quiroga*

*There is no ques-
tion that this is a
Porsche. Won-
derful feedback,
quick, smooth,
and bolted
together like a
battleship.
—Colwell*



Subaru WRX

*There's an old-
school charm to
this car—no
fussy drive
modes, no rev-
match function,
just plain old
performance
and
hoonery.
—Dorian*

*The powerband
is narrower
than a 1960s
necktie.
—Ceppos*



Toyota Corolla Hybrid

*The independent
rear suspension
has transformed
the Corolla from
an ill-handling
and nondescript
entry-level car
to a nondescript
entry-level car
with poise and
balance.
—Edmunds*

*It's the perfect
getaway car if
you were
robbing a bank.
No one would
notice it.
—Ceppos*





Toyota Supra

ANOTHER LEGEND IN THE MAKING.

The final A80-generation Supra's ascension to legend status—years after production ended—spurred Toyota to resurrect the name on an all-new model for 2020. Could today's Supra be on track to become one for the ages? It's looking that way.

That the latest Supra is making its third appearance on our 10Best cars list isn't just happenstance. For one thing, Toyota continues to hone the Supra, which now is the halo model for a range of GR-branded performance cars. For 2021, Toyota added a turbo-four engine option that dropped the price of entry. That same year also saw a boost in the inline-six's output to 382 horsepower, putting it on par with its BMW sibling, the Z4. The car has also been treated to chassis refinements that deliver more linear steering, better body control, and less tail-happy cornering. Oh, and there's upgraded in-cabin tech. For 2023, however, Toyota is offering the item that was at the top of our wish list: a six-speed manual transmission. And the stick shift is the best gift Toyota could have given the Supra—and its fans.



THE NUMBERS

—
255-hp turbo 2.0-liter inline-4,
382-hp turbo 3.0-liter inline-6;
6-speed manual, 8-speed automatic
Base: \$44,635–\$53,595

C/D Test Results

60 mph: 3.7–4.5 sec

1/4-Mile: 12.2–13.1 sec

Top Speed (C/D est): 155–161 mph

Braking, 70–0 mph: 147–149 ft

Roadholding, 300-ft Skidpad:

1.02–1.04 g

EPA Fuel Economy

Comb/City/Hwy:

21-28/19-25/27-32 mpg

The added involvement of a shifter and three pedals takes the interaction between driver and machine to a new level. It helps that the gearbox is exceedingly graceful in its shift action and that the clutch isn't too heavy, with linear takeup. Running through the gears naturally leads to spending more time in the upper rev ranges of the inline-six (the stick shift isn't available with the turbo four), which will have you smiling in appreciation of



the smooth BMW inline-six. Granted, there's a price to pay in terms of ultimate acceleration: 0.2 second. That's the measure by which the manual Supra 3.0 trails the eight-speed automatic in the sprint to 60 mph and the quarter-mile. But 3.9 seconds to 60 and 12.4 seconds in the quarter are times we can live with. Happily.

Toyota celebrates the arrival of the manual with an A91-MT limited-run special decked out in unique paint and

trim. A special appearance package is the sort of tweaking you might expect a low-volume sports car to receive, but Toyota has gone much further to keep this A91-generation Supra relevant.

Too often, you don't appreciate what you have until it's gone. That certainly was the case for the A80 Supra, which in its day was largely ignored in showrooms and sold in minuscule numbers. Supra fans shouldn't make that mistake again. —Joe Lorio

THE NOMINEES ARE ...



Volkswagen GTI
The inherent GTI goodness we love is here, but unfortunately the touch controls are a dealbreaker.
—Capparella

I bet the Elantra N puts up better numbers, but this is a better overall package.
—Colwell



Volkswagen Golf R
I don't care how good the dynamics are—this and the GTI should be disqualified based on the user interface.
—Lago

A great all-rounder that wants for nothing, dynamically. —Lorio



Volkswagen Arteon
I remember the Arteon as being more fun.
—Quiroga

This is a great choice for young families that don't want an SUV, if that demographic exists.
—Edmunds

I prefer this to the Accord. But it costs 50 percent more.
—Csaba Csere

2022 Winners and Losers

**Our look back
at the peaks and
valleys of the past
year's automotive
news. There are
more valleys than
peaks because, well,
it was that kind of
year. Again.**

BY K.C. COLWELL

WINNER: SCOT BURNER

They say genius is 1 percent inspiration and 99 percent perspiration. In the case of Scot Burner's new Guinness World Record, we'd say it's 99 percent inspiration. He earned the certificate for fastest mile driven in reverse, averaging 48 mph lapping his C7 Corvette around the National Corvette Museum Motorsports Park racetrack in Kentucky. We did something similar in 2011 with rental cars, which got four of our staffers banned from Avis for life. Turns out loss prevention has no sense of humor. If Burner's feat inspires you to make a run for a record, find a Lincoln Town Car. As our decade-old story can tell you, it'll do a terrifying 63 mph in reverse, 9 mph faster than the highest speed Burner saw. Hertz may still have a few in service.





WINNER: ROSS CHASTAIN

In a move straight from the minds of preteen gamers, Ross Chastain went full send on the last lap of the 2022 Xfinity 500 at Martinsville Speedway. What is “full send,” you ask? In this case it is a last-ditch effort to secure a place in the Championship 4—NASCAR’s convoluted playoff event—by pinning the throttle to the floor and the car’s right side to the wall in the final two turns in the race. Chastain made up five places with the move, three more than he needed. We half expected NASCAR to respond with a new rule, a move that would have landed it in the loser category here. But Chastain told the media, “I have no ideas or plans to ever do that again because it was not pleasant.” It sure was cool to watch.



LOSER: MASERATI

Naming its MC20 the Cielo might not seem like much of an L for Maserati on the surface. After all, the roof is removable, and *cielo* is Italian for sky. But back in 1999, Buick introduced its own Cielo, a really lame concept car based on the Regal sedan. The Goldleaf Chromaflair—a metallic orange—concept lacked a roof and had a look that may have been inspired by a plastic grocery bag. We’ll just lay it out here: This sort of design and thinking led to things like the Pontiac Aztek. Maserati’s Cielo is gorgeous, but when we hear Cielo, all we can see is that Buick.



LOSER: FARADAY FUTURE

Prospects have dimmed for the EV startup Faraday Future. In February, its chairman stepped down over the company’s potentially misleading investors regarding preorders. Then the Securities and Exchange Commission subpoenaed members of Faraday management. This was less than a year after Faraday went public through a SPAC (special-purpose acquisition company), which avoids the scrutiny of the IPO process. The stock price was \$14.82 the day after Faraday joined the NASDAQ in July 2021 and has since shrunk to less than a buck.

WINNER: PORSCHE

Porsche now offers a roof-top tent for, get this, the 911. Seemingly designed for those who think the highway noise of 305-series Pirellis just isn’t loud enough, the hard-shell tent is available from Porsche dealers. We’re sure plenty of these \$7029 pop-tops (\$1029 for the tent, \$6000 for printing “Porsche” on it) will end up on the Safari-style 911 Dakar model that Porsche debuted at the L.A. auto show. The only bummer is Porsche says vehicle speed should be limited to 81 mph with the tent on top. We have never known Porsche not to be serious, so we’d heed that warning.



LOSER: NIKOLA

Did someone say, “EV startups need more bad news”? In October, Trevor Milton, the founder and former CEO of Nikola, was convicted of fraud in federal court (he plans to appeal). Nikola, if you’ll recall, was going to sell an electric pickup called the Badger, but the firm switched gears to focus entirely on electric semi trucks. Despite having to recall them for a minor issue, the company did deliver 93 trucks in 2022.



LOSER: FELICITY ACE

The cargo ship caught fire and sank in the Atlantic in March. All 22 crew members survived, but 3965 Volkswagen Group vehicles did not, including 85 cars from Lamborghini and 189 from Bentley. Media speculated that an electric-car fire was the ember that did in the *Felicity Ace*, but we’re here to smother that idea, as the cause is unknown. We may never know for certain what happened because the ship is now nearly two miles (0.5 league) under the sea. There’s an estimated \$401 million worth of cars down there, so maybe some rich eccentric will mount a salvage operation. If that happens, be wary of a zero-mile Aventador LP 780-4 Ultimae advertised on Autotrader for a song.



LOSER: NISSAN

In response to the war with Ukraine, Nissan sold its Russian operations to Russia for a buck. That amounts to a \$687 million Toto flush for the Japanese company. It’s a big loss but an honorable decision. In April, Nissan has the option to buy back the operation—production in St. Petersburg and business ops in Moscow—but that seems unlikely.

WINNER: FORMULA 1

Formula 1, among the most popular sporting series in the world, finally found a significant number of viewers in U.S. households with the help of a soap-opera-like reality show called *Drive to Survive* on Netflix. We shouldn’t be surprised that a bit of drama was injected into F1, considering a company named Liberty Media acquired the Formula One Group—the firm that manages F1—for a cool \$8 billion in 2017. Between the success of *Ted Lasso* and Ryan Reynolds’s purchase of a Welsh football club, expect soccer to be the next sport to surge in the U.S., but probably not.



LOSER: FORMULA 1

Yup, you can win and lose in the same year. While F1 won the hearts of U.S. fans, it also lost some integrity. Exhibit A: The 2021 drivers’ championship was decided on the last lap of the last race. Rules were bent so the race wouldn’t end behind a safety car. Red Bull’s Max Verstappen benefited, winning both the race and the championship, with Mercedes and Lewis Hamilton feeling like they were the ones who got bent. Fast-forward to October 2022 and exhibit B: The previous year’s budget review determined that Red Bull had spent too much, further chapping Mercedes. Those in the sport are split about the resulting fine and punishment, with Mercedes landing on the side of too lenient. Some would say rules are rules—F1 has 329 pages of them, after all. It’s a whole lot of drama. Remember, a media company owns F1.

LOSER: ELON MUSK

Twitter. Enough said. 🇺🇸



News Flash....

Government Gets Something Right



Super Light Titanium Timepiece Loses Only One Second Every 20 Million Years.

BOULDER, Colorado The U.S. government has engineered the most ingenious, most accurate clock in the world: the F-1 U.S. Atomic Clock in Boulder, Colorado. Our extraordinary new Stauer Titanium Atomic Watch utilizes the transmissions directly from that remarkable cesium fission atomic clock to report the most precise time. This scientifically advanced timepiece will gain or lose only one second over a 20 million-year period. It is that accurate! This perfectly tuned technological invention with the super light strength of titanium is now available for UNDER \$130.

Super Light Titanium has two big advantages over steel. One is corrosion resistance and the other is that titanium has the highest strength-to-weight ratio of any metal, which means that titanium is approximately 45% lighter than steel. But every other titanium watch that we can

find is priced at over \$400, and none of those are nearly as accurate as our atomic movement. Stauer has decided to bring these resources together in a timepiece that has the most accurate movement available today. You'll never have to set this watch. Just push one of the buttons and you are synchronized with the atomic clock in Colorado, and the hands of the watch move to the exact time position. The sleek black textured dial has luminous hands and markers plus the timepiece is water resistant to 3 ATM.

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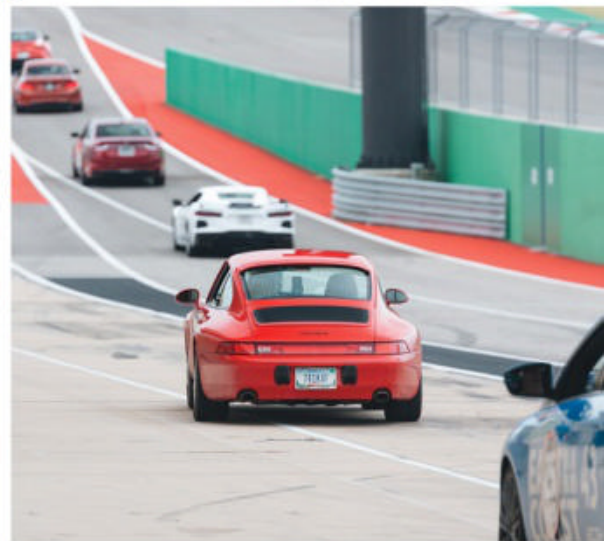
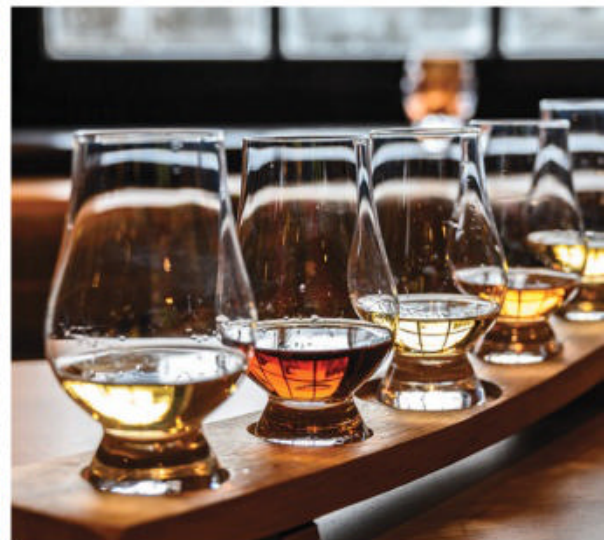
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— 2022 —

RAM 1500 TRX

LIVING WITH TYRANNOSAURUS REX. BY MIKE SUTTON



The Ram 1500 TRX is the kind of larger-than-life automobile that made many of us at *C/D* fall in love with cars in the first place. The big Ram's supercharged 6.2-liter V-8 alone gave us 702 reasons to evaluate it for 40,000 miles—it's the most powerful vehicle we've ever tested for an extended period. That it's also the 10Best-winning Ram 1500's answer to the mighty Ford F-150 Raptor sealed the deal: We wanted one. Yet what strikes us after a year of cohabitation is not just the absurdity the TRX brings to whatever it does but how much it was able to do during its stay.

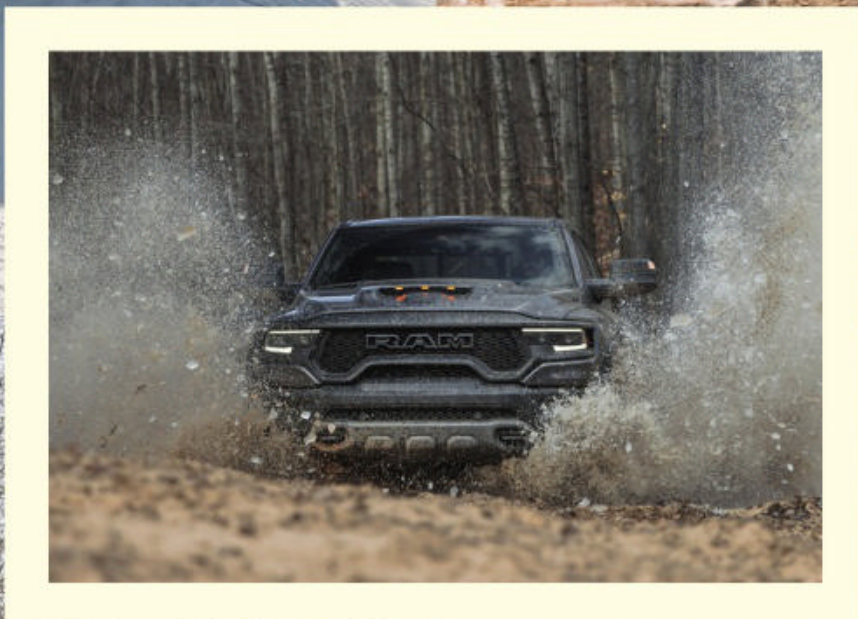
Testing director Dave VanderWerp laid it out in the TRX's logbook: "It's a

Hellcat with a Mercedes S-class-size rear seat and a 3.5-ton truck with a suspension that enables great leaps through the air. Plus, it's still useful as a pickup. Incredible." We'd add that it's a rich source of entertainment on any terrain. With 650 pound-feet of torque, full-time four-wheel drive, and a deftly tuned ZF eight-speed automatic, our TRX thundered to 60 mph in a launch-control-enabled 3.8 seconds. The quarter-mile fell in an implausible 12.4 seconds at 110 mph, the V-8's blower whining the whole way. Those times improved to 3.7 and 12.3 seconds, respectively, at the end of our test, which made it even easier for this behemoth to surprise some formidable performance cars

ARRIVAL
OCTOBER 2021

DEPARTURE
NOVEMBER 2022

LOG PHOTOGRAPH BY DAVE VANDERWERP; BEACH PHOTOGRAPH BY DARIN JOHNSON; DETAIL, ROCKS, AND ACTION PHOTOGRAPHY BY MARC URBANO; TRACK PHOTOGRAPH BY MICHAEL SIMARI



Sand, stone, wood, and water are no problem. We took the TRX to a track day, and after looking at the photos, we thought long about ordering the beadlock rings for the wheels.





Rants and Raves

Compared with the Raptor, the Ram sounds so much better and elicits stronger reactions, but it's more fatiguing to drive.

—ERIC STAFFORD

I love the exhaust note, but \$91K should get you an active exhaust to shut it up.

—DAVID BEARD

This thing guzzles more than a freshman during hell week.

—K.C. COLWELL

I'm impressed the connecting rods don't bend with the amount of fuel going into the cylinders.

—DAVID BEARD

Having an infotainment system with so many gremlins repeatedly acting up is no way to spend 40 hours behind the wheel.

—DARIN JOHNSON

at stoplights, including our long-term Cadillac CT4-V Blackwing sedan.

We were suitably impressed, given the truck's 6781-pound mass and long-travel suspension (13.0 inches of front- and 14.0 inches of rear-wheel travel, courtesy of a beefy all-coil suspension and adaptive Bilstein dampers with external reservoirs). Admittedly, this hulking Ram's lane-clogging 88.0-inch width and nearly 20-foot length made it overkill for wooded trails. After almost getting it stuck in a parking garage, one commenter noted, "The TRX is likely to cause claustrophobia in city traffic." Yet let loose on the open dunes of Michigan's Silver Lake State Park—the only place we went where the TRX didn't feel grossly overpowered—it channeled its inner trophy truck with help from its 35-inch Goodyear Wrangler Territory AT tires [see "Kicking Tires," page 58].

Such capability brought a steep \$75,175

2022 RAM 1500 TRX

Vehicle Type: front-engine, 4-wheel-drive, 5-passenger, 4-door pickup

Base/As Tested \$75,175/\$91,030

Engine: supercharged and intercooled pushrod 16-valve V-8, iron block and aluminum heads, port fuel injection

Displacement 376 in³, 6166 cm³

Power 702 hp @ 6100 rpm

Torque 650 lb-ft @ 4800 rpm

Transmission: 8-speed automatic

Dimensions

• **Wheelbase** 145.1 in

• **L/W/H** 232.9/88.0/80.9 in

• **Curb Weight** 6781 lb

Warranty

3 years/36,000 miles bumper to bumper

5 years/60,000 miles powertrain

3 years/unlimited miles corrosion protection

5 years/60,000 miles roadside assistance

Model-Year Changes

2023: Unchanged.

TEST RESULTS

	New	40,000 miles
60 mph	3.8 sec	3.7 sec
100 mph	9.7 sec	9.4 sec
1/4-Mile	12.4 sec @ 110 mph	12.3 sec @ 111 mph

Results above omit 1-ft rollout of 0.3 sec.

Rolling Start,

5-60 mph 4.6 sec 4.5 sec

Braking, 70-0 mph ... 195 ft 190 ft

Roadholding,

300-ft Skidpad 0.66 g 0.69 g

Top Speed (gov ltd) 118 mph

C/D Fuel Economy

• **Observed** 11 mpg

EPA Fuel Economy

• **Comb/City/Hwy** 12/10/14 mpg

The TRX shows off its rear coil springs. It's surprisingly light on its feet off-road, considering it weighs 6781 pounds.



Stay Thirsty,
My Friend

SERVICE

Dealer Visits	
• Scheduled	7
• Unscheduled	6
Days out of Service	4
Unscheduled Oil	
Additions	0 qt
Damage and Destruction	\$31

LIFE EXPECTANCIES

Tires 80,000 miles

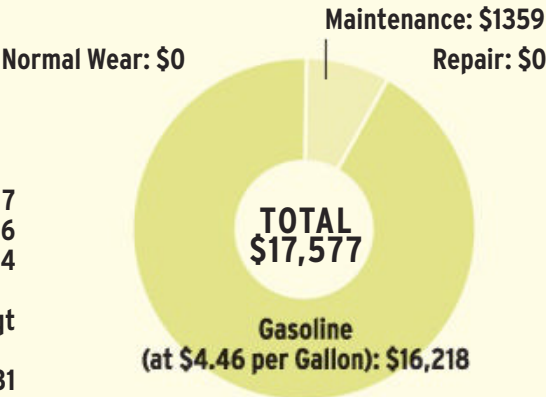
Brake Pads

- Front 85,000 miles
- Rear 90,000 miles

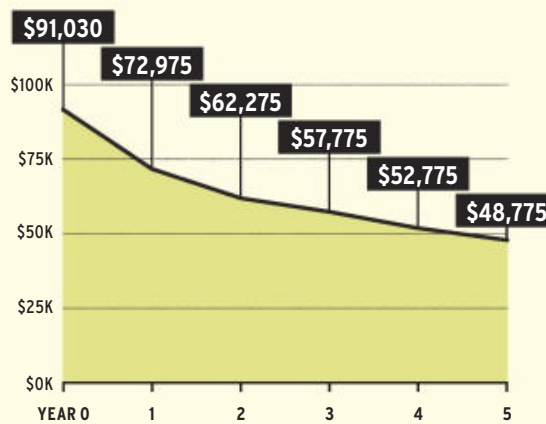
WHAT BITS AND
PIECES COST

Headlamp	\$1710
Engine Air Filter	\$65
Oil Filter	\$11
Wheel	\$1260
Tire	\$333
Wiper Blades, L/R	\$25/\$25
Front Brake Pads	\$302

OPERATING COSTS FOR 40,000 MILES



FIVE-YEAR DEPRECIATION
Depreciation data from Black Book,
based on 12,000 miles per year.



SERVICE TIMELINE

October 15, 2021
151 miles
Long-term test begins.

December 7, 2021
5695 miles
Dealer performs oil change, rotates tires, and retorques the improperly tightened front anti-roll bar links and rear track bar. Software update appears to remedy CarPlay issue. \$155

January 31, 2022
11,199 miles
Dealer performs oil change, rotates tires, and replaces cabin air filter. \$213

February 3, 2022
11,287 miles
We install BFGoodrich All-Terrain T/A K02s for winter. \$1476

February 24, 2022
12,671 miles
Dealer orders touch-screen replacement. \$0

March 24, 2022
16,316 miles
We refit the Goodyear Wrangler tires. \$0

March 30, 2022
16,752 miles
Dealer performs oil change and rotates tires. The touchscreen is replaced under warranty. \$150

April 20, 2022
18,403 miles
Dealer diagnoses driveline noise. Nothing incorrect found. \$0

May 24, 2022
24,752 miles
Dealer performs oil change, rotates tires, and replaces cabin air filter. \$180

June 16, 2022
26,200 miles
An over-the-air update finally fixes the touchscreen. \$0

July 14, 2022
31,420 miles
Dealer performs oil change, rotates tires, and replaces engine air filter. \$307

August 31, 2022
36,257 miles
Dealer performs oil change, rotates tires, and replaces cabin air filter. \$233

September 15, 2022
37,725 miles
Dealer again fails to diagnose driveline clunk. \$0

September 23, 2022
38,140 miles
Local tire shop repairs two nail punctures. \$31

October 11, 2022
40,122 miles
Took to dealer for a check-engine light. It was determined the TRX needed a replacement right-side catalytic converter and two oxygen sensors. A service bulletin addresses the driveline clunk. Parts are ordered. \$0

October 25, 2022
41,796 miles
Dealer performs oil change and tire rotation. Catalyst and O2 sensors replaced, but driveline parts remain back ordered. \$121

November 7, 2022
41,853 miles
Long-term test ends. Accountants question the newfound surplus in our fuel budget.

starting price, which was inflated further by the \$7750 TRX Level 2 Equipment Group (head-up display, a 19-speaker Harman/Kardon stereo, and heated and ventilated front and rear seats, among other luxuries). Additional options included a set of \$1895 18-inch beadlock-capable wheels, the \$995 Advanced Safety Group with adaptive cruise control, \$995 Mopar rock rails, and a \$695 trifold tonneau cover. The final tally came to \$91,030, still \$18,115 less than Ford charges for its new 700-hp F-150 Raptor R.

And then there's the staggering amount of premium fuel the TRX consumed during its stint—3689 gallons—which amounted to a \$16,218 line item. We averaged 11 mpg overall, 1 mpg less than its EPA combined estimate. The 13 mpg we saw on our 75-mph highway test meant only the gentlest of throttle feet could eke out 400 miles between fill-ups of the 33.0-gallon tank. Even with gas below \$5 per gallon, supporting the TRX's drinking habit amounts to a second car payment.

Yet this truck's broad skill set kept it in constant demand, whether as a base camp in Northern Michigan with a rooftop tent installed or as a hauler of everything from firewood to snowmobile trailers—despite its modest (for a half-ton truck) payload and towing capacities of 1310 and 8100 pounds, respectively. The TRX's crew-cab configuration, with 45.2 inches of rear legroom, and

Peak infotainment frustration: The top bar of the screen says no phone is connected when CarPlay clearly is.

Ram's upscale interior offered palatial accommodations on road trips to Florida and Virginia. It even lapped Virginia International Raceway's 4.1-mile Grand Course,





Want to drop your TRX's fuel economy from 11 to 9 mpg in one easy step? Put a rooftop tent over the bed.

In rural America, the TRX attracts as much attention as an exotic sports car.

—ERIC STAFFORD

When did Uconnect become this awful? It crashes constantly.

—GREG FINK

The V-8 sounds so amazing when working hard that it's almost worth the \$200 fill-ups.

—DAVE VANDERWERP

Irritating to think that \$91K buys you all this truck, but also all these issues that the dealer can't seem to fix.

—CHRISTI VANSYCKLE

I simply adore this ridiculous truck. Now that the touchscreen works again, I want to keep this rig.

—CARLOS LAGO

This thing rides so stiffly that you forget it has rear coils.

—ERIC STAFFORD

an outing we made just for fun. And it was fun until the brakes got squishy during its first lap. Still, the track-outline sticker our truck earned was an undeniable flex next to the off-road-vehicle permits on its rear window.

The TRX's gung-ho charm did wear thin at times, though. Its exhaust rumble—which increased from 79 to 82 decibels at full throttle during our test—reverberates through nearby structures and can be droning at speed, prompting some drivers to wish for an active system with a quiet mode. Others were put off by its ride, which is stiff for a desert runner, but the firm setup lends the TRX more composure on back roads than you'd expect. We all agreed that twirling the steering wheel took more effort than it should. And annoyance with the 12.0-inch Uconnect touchscreen was unanimous. Plagued with glitches, it regularly froze up, dropped Bluetooth connections, and generally acted possessed. Although the dealer attempted to fix the problem by replacing the entire display assembly under warranty, it wasn't until 26,200 miles that an over-the-air update banished the worst of the system's bugs.

Additional frustrations included noises from the TRX's suspension, which the dealer alleviated by tightening the mountings for the front anti-roll bar links and the rear Panhard rod. But clunks from the drivetrain at stop-and-go speeds and when shifting between drive and reverse persisted throughout our test. Reports from other TRX owners indicate this is a known problem, but multiple dealers found nothing wrong with our rig. Although a Stellantis service bulletin outlines a fix that entails fitting a new boot packed with fresh grease to the TRX's driveshaft, parts were still on back order when our truck departed, so we can't report on their effectiveness. The seven routine oil changes and tire rotations requested by our truck's computer,

The Rubberband Man

KICKING TIRES

As fun as it was to slide our TRX around in snow, the stock LT325/65R-18 Goodyear Wrangler Territory AT tires didn't perform as well as we'd like in the white stuff. Unfortunately, searches for a direct winter-weather replacement came up empty, which led us to experiment briefly with a set of closely sized 35X12.5R-18LT BFGoodrich All-Terrain T/A K02s. Setting us back \$1476 from Tire Rack, they brought a tread design packed with biting edges that help the K02 earn the three-peak mountain snowflake symbol missing from the Goodyears' sidewalls. Subjectively, drivers reported greater traction and confidence in snow and slush with the BFGs, plus a slight improvement in the TRX's road manners. At the test track when new, the K02s provided 0.69 g of grip compared with the Wranglers' 0.66 g, yet they stretched the TRX's 70-mph stopping distance from 195 to 208 feet (the Goodyears' metrics improved to 0.69 g and 190 feet at the end of 40,000 miles). More important for some, the BFGs were quieter on the road. While both tires contributed to 70-decibel interior sound readings at 70 mph, the hum of the Wranglers' chunkier lugs induced "road-noise tinnitus" in some drivers, especially toward the end of our test, when our 70-mph measurement increased to 71 decibels.

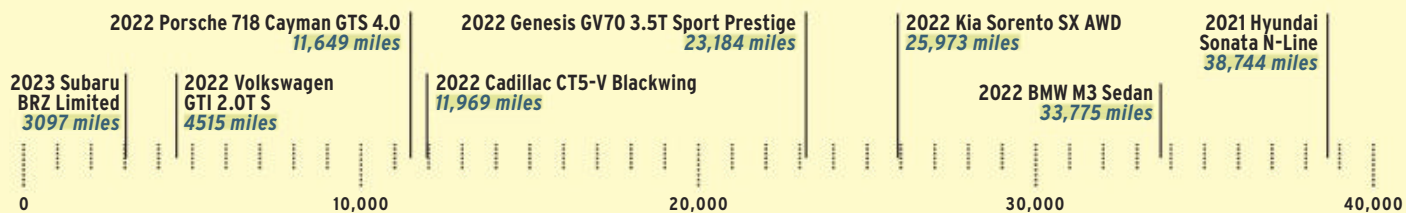


at an average of \$194 per, were straightforward in comparison.

The TRX ultimately left some of us feeling content that our test was only a short-term fling and not a committed marriage. Versatile as this truck may be, sensible it is not. And yet the effectiveness with which it blurs the line between work and play won many of our hearts. "The TRX's alpha attitude is undeniably intoxicating," noted senior associate editor Eric Stafford. "But I doubt anything like it will be offered in 10 years." Sadly, he's probably right. We're glad we got our kicks while we could. 🇺🇸

Fleet Files

HERE'S HOW OUR OTHER LONG-TERM VEHICLES ARE FARING IN THEIR 40,000-MILE TRIALS:



Honeymoon Phase

2022 FORD BRONCO

ARRIVAL: SEPTEMBER 2022

MILES: 6699

OBSERVED MPG: 16

Like so many eager Bronco owners, we had to wait for the factory to build our rig, but we've finally welcomed a Ford Bronco Badlands for a 40,000-mile test. The Bronco was a 2022 10Best winner, and we were anxious to add the big, beefy off-roader to our long-term fleet.

We knew we needed four doors for practicality and, yes, the seven-speed manual gearbox. The four-door Badlands starts at \$48,185, and we added the High Package equipment for \$2790 and the Sasquatch package for \$4090, the latter netting us 35-inch tires. The towing package (\$595), hard top (\$695), heavy-duty front bumper with tow hooks (\$575), cargo-area protector (\$120), and all-weather floor mats (\$160) brought the bottom line up to \$57,210.

This isn't the heaviest current-gen Bronco we've tested, but it's the slowest. At the track, the turbocharged 2.3-liter inline-four pushed our Bronco to 60 mph in 7.4 seconds—the Bronco Raptor did it in 5.6. That doesn't faze us; we didn't pick this rugged rebel for its speed. —*Rebecca Hackett*



handling, and rich feedback. So naturally, we ordered one for a long-term test, with the standard six-speed manual gearbox instead of the 10-speed automatic. We also matched the Electric Blue exterior (\$625) with blue brake calipers (\$595) and 18-inch bronze-colored wheels (\$1500). The cabin is outfitted with heated and ventilated bucket seats that are perfect for Michigan's ever-changing weather.

The CT4-V Blackwing has been stellar so far, quickly amassing heaps of praise for its driving dynamics, particularly the sharp and responsive steering and gearbox. And the car is also excelling at the daily commute thanks to the forgiving ride afforded by the magnetorheological dampers. Some wish a more characterful V-8 powered the CT4-V, while others have complained about the quality of interior materials. But the CT4-V Blackwing is earning plenty of adoration and stealing some thunder from our long-term BMW M3. —*Caleb Miller*

Bonding Phase

2022 CADILLAC CT4-V BLACKWING

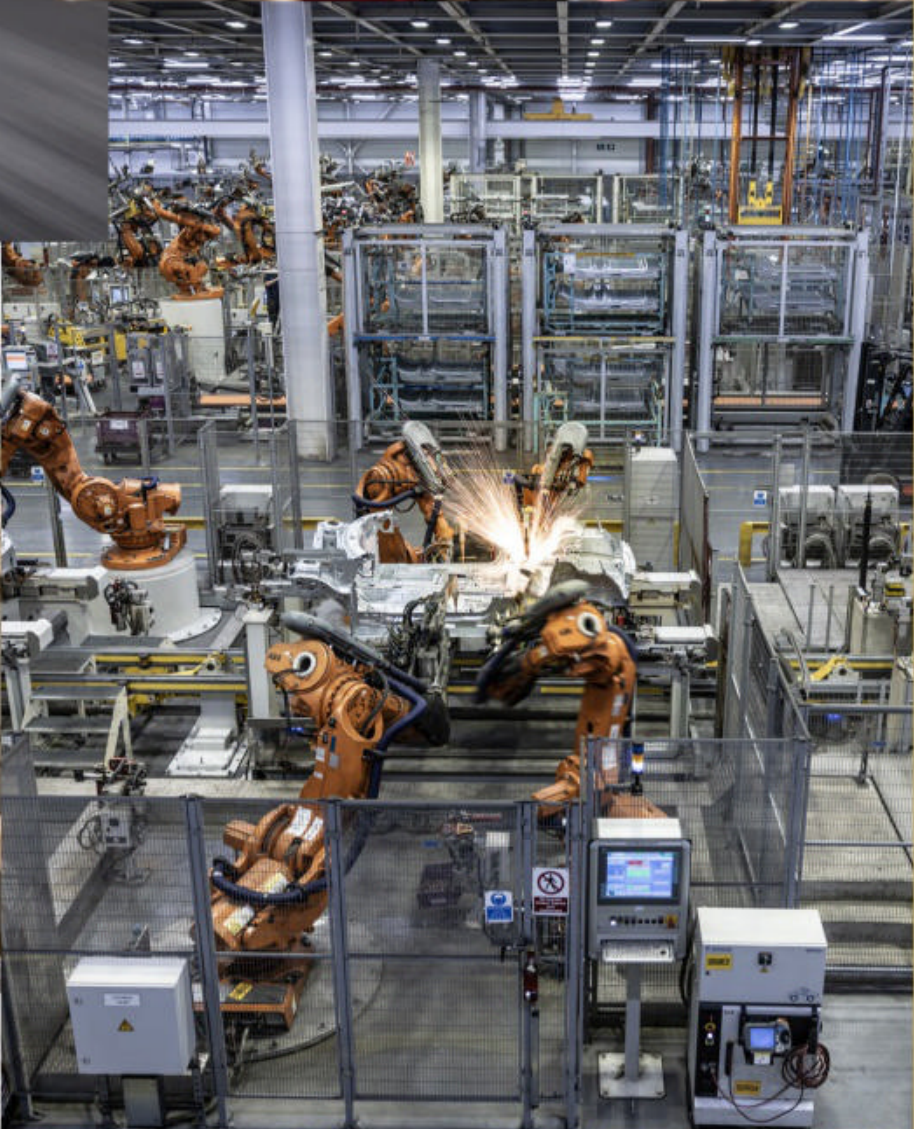
ARRIVAL: JULY 2022

MILES: 6302

OBSERVED MPG: 19

The Cadillac CT4-V Blackwing earned a spot on our 2022 10Best list and set a sub-three-minute time at Lightning Lap thanks to its 472-hp 3.6-liter engine, crisp





Britain's automobile industry is down but not out with a little help from its friends.

CURSE GLOBALIZATION ALL YOU LIKE, but it's a safe bet that what remains of England's automobile industry wouldn't be here today without investments from around the world. Over the course of a week driving around Britain, we visited several enterprises that are not so much surviving as thriving, all thanks to foreign connections willing to open their wallets.

Our journey begins with a trip to West Sussex, where Rolls-Royce launched the Spectre, the 116-year-old company's first electric production car, a plus-size coupe of undeniable presence. Erected with parent BMW's money, its showpiece Goodwood factory is now configured to build internal-combustion and electric cars on the same line. The airy, low-lying corporate home on lush country grounds is a most British of settings and can only help as the company attempts to upsell returning customers and

visiting prospects bespoke hides, paint schemes, and more from its steamship-size list of pricey custom options. That body shells, engines (for now), and many other critical parts come from Germany for assembly in England isn't something they talk much

about here, where Britishness is an essential part of the appeal.

The following morning, we head to the Mini plant in Oxford, built out with the unstinting assistance of the same German benefactor. Tours commence in a small museum that occupies part of the factory that turned out the first Morris Oxford, which in the 1920s made William Morris's firm Britain's biggest car producer. It merged with Austin in the 1950s to form BMC, then combined with other ailing firms in the 1960s to form British Leyland, and in ensuing decades found itself involved with a host of similarly troubled successor entities that had different names. One of the few things to survive it all was the Mini brand, the only marque BMW kept when it discarded the rest of what had become the Rover Group.

Two decades after its relaunch for 2002 as a stand-alone brand, Mini is here building zippy electric models on the same line as gas and diesel cars, thanks to extensive use of modern robotics. The plant is notably quiet in operation, and the mood appears upbeat.

This is in spite of Mini's announced plans to shift production of EVs to

By Jamie Kitman Photography by Charlie Magee



Above: Mini's modern assembly line juxtaposes the hand forming at Morgan. Below: Writer Kitman side-eyes the only modern bumper in sight at JLR.

China, a potentially ominous development for a brand that plans to be all electric. At present, 40,000 electric Minis leave Plant Oxford each year. “Mini Plant Oxford is the heart of the brand,” says Stefanie Wurst, global head of Mini. “Our commitment to production in the United Kingdom has not lost any strength whatsoever.” A new Chinese plant is being built to grow share there, where, she explains, imported Minis currently cost as much as locally produced BMW 3-series. While a second production site in Leipzig will build one Mini model, the U.K. plant will supply three models. “In other words,” Wurst says, “no other plant will be building as many models as Oxford.”

We again witness foreign inroads into the British market when we arrive at Malvern Link in Worcestershire to visit the 113-year-old Morgan Motor Company. The charmingly dinky factory buildings date to the early 20th century, with little to give away all that is new within, thanks once again to investment from abroad.

Yet change has come to the cars and the processes used to build them. Expanding the list of Anglophile saviors from afar, Italian businessman Andrea Bonomi and his family's private equity firm, Investindustrial, bought a controlling interest in the business in 2019 from the Morgan family (who retain a minority holding and role as “brand stewards”), giving the hidebound company a new lease on life.

Its heavily revised “volume” Plus Four roadster, powered by a turbocharged 2.0-liter four from—guess who—BMW, is again slated to be offered for sale in America in 2023, bolstered by a new world of contemporary features [see “Morgan Plus Four Joins the 21st Century,” page 65]. The car's charismatic good looks still trace to the 1930s, but its platform and suspension at last are now modern, ridding the Morgan of its infernal and near-eternal nod to antiquity.

Just as impressive to drive and also headed to the States once again is a new Morgan three-wheeler. Not



the stillborn electric concept scuttled in 2018, the new Super 3 replaces its predecessor's spindly ladder frame and wood-frame body with a full aluminum chassis. Meanwhile, a turbocharged Ford 118-hp 1.5-liter inline-three steps in for the Harley-inspired V-twin that had become one of Morgan's worst-ever warranty nightmares. The pint-size three-pot makes the slightly less adorable-looking Super 3 faster and, more important, far more bearable on the noise, vibration, and harshness front.

Still, there's nothing cushy about the experience of driving the new car. Wind-screens are minimalist afterthoughts.

With a nonexistent top, the wind, rain, and bugs are yours to enjoy. But who cares? A wider front track improves handling, and the Mazda Miata-sourced five-speed gearbox remains impressive. They help make the Super 3—all 1500 pounds of it—an exhilarating small-bore blaster that we found completely nuts and didn't want to return.

Next stop is Jaguar Land Rover's Classic Works in Coventry, once a bustling car-building city—England's Detroit, if you will. Things have tapered off if not petered out entirely in Coventry, but heritage is one of Britain's chief exports these days. In fact, the country increasingly resembles a theme park whose theme is the past. The monarchy is one example, but nothing in the world of consumer goods has more heritage appeal than classic cars.



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Given the rising values of older Jaguar and Land Rover models, it only made sense for JLR to cater to the buoyant classic-car market. So, with a little help from Indian parent Tata, it opened the Classic Works enterprise in 2017. Today, in a ginormous workshop adjacent to a large showroom filled with sparkling machines from its past, skilled technicians and craftsmen restore old cars and service others, even re-creating classic models such as Jaguar's D-type, XKSS, and Lightweight E-type in continuation series. It started with the Land Rover Reborn program, which has cranked out more than 50 refurbished original-formula Landies from the late '40s and '50s. More profitable still are the 150 70th Anniversary Edition Defender Works V8s it has sold, along with 25 Works V8 Trophy tributes and another 25 Works V8 Trophy Twos, all with six-figure price tags. The newest program has started delivering reborn Range Rovers, the early ones purists are falling for in a big way.

Mike Bishop oversees the Range Rover Reborn program. "The vehicles sell themselves, effectively," he says. "You're just here to help enjoy the journey. You're not really selling them an everyday car, are you? You're selling them that dream."

Down by the Cotswolds, in tiny Hinton-on-the-Green, Morris Commercial's controlling shareholder, Qu Li, has a dream of her own. A Chinese mechanical engineer who's spent 30 years in the U.K., for 2023 she hopes to put into limited production an electric van inspired by the beloved postwar Morris J-type van, once a ubiquitous postal and delivery vehicle highly regarded for its excellent space-to-footprint ratio and jolly visage. Looking possibly better than ever, the updated van Morris Commercial hopes to build will feature a body made of recycled carbon fiber.

Though it has but two prototypes to show for itself so



Above: Lotus's plant in Hethel looks terribly close to an assembly line. Below: The Morris van looks like it should spew soot, but it's an EV.

far, the story of Morris Commercial already sounds like fodder for a gripping tome. Li and her China Ventures consultancy worked closely with the "Phoenix Four," the briefly celebrated quartet of British businessmen who rescued MG Rover from extinction in 2000 after BMW pulled the plug, only to put the enterprise into the ditch in 2009 (while still managing to walk away with large piles of cash).

From the wreckage of MG Rover, Li bought out of bankruptcy van maker LDV, which was formed in 1993 by the merger of two ailing firms, Britain's Leyland and Holland's DAF. Li quickly sold the rights to LDV's vehicles, using proceeds of the sale to develop Morris Commercial. Shrewdly, she identified the old J-type—which was introduced alongside the Morris Minor in 1948—as her ticket to ride.

We drove a running blue and white prototype of the electric Morris van. Bodied in aluminum, it is more of a proof of concept, where a pink and white model with the recycled-carbon-fiber body is closer to the hoped-for final product and spec. Though neither really represents what the finished van might actually be like, the blue truck was perfectly pleasant and, with its skateboard chassis, usefully large inside. We can confirm that passersby go mad for its retro good looks. It's that cute.

From hopeful startup to ambitious old hands: Our last stop is at Hethel, Norfolk, where the fruits of Chinese juggernaut Geely's multibillion-dollar investment in Lotus Cars are everywhere to see. From the 1973-hp Evija EV to the company's excellent new volume machine, the Emira, and the newly outfitted factory



that will build it, Lotus's current situation underscores what a lot of good money can do.

As Lotus approaches its 75th anniversary, the roller-coaster ride it has been on for its entire existence has entered a new phase. With its new foreign owners, Lotus plans to increase volume exponentially—not just here at its ancestral and spiritual home base, but in China, where its first SUV, the Eletre, is already in production.

But while the Eletre, a two-motor electric SUV claimed to be the fastest of its species in the world, is expected to help Lotus achieve an unheard-of annual sales volume of 100,000 before decade's end, the 5000 Emiras it hopes to build here annually mark a different roll of the dice. The last purely internal-combustion car the company says it will ever build, the Emira caps a long line of lightweight sports cars that prioritize roadholding and an intimate connection between driver and machine. Even though it is heavier than all Lotuses that have preceded it, the Emira is still meant to follow that path.

It also lays the groundwork for a new generation of Lotus sports cars, whose content and construction will be effected here in the Norfolk countryside. They will all be electrified, with the weight penalty that implies, as truly lightweight electric cars are a ways off, awaiting as yet undiscovered battery technologies.

Lotus's prospects have improved immeasurably thanks to the largesse of Geely, an operation that has demonstrated a surprisingly delicate touch with its foreign holdings, as exemplified by its purchase of Volvo. (In October 2022, Geely acquired a minority stake in Aston Martin.) The Chinese firm seems less vulnerable than Western companies to the impatience of jittery shareholders and the short-sighted broader market. It is therefore seemingly able to operate with a longer timeframe in mind.

Which is a good thing. For as any Briton could tell you, the creation of a heritage worth remembering takes time. And money. Wherever it comes from. 🇬🇧



The handsome cockpit is wider and more comfortable. For the first time, it boasts the amenities found in a base Corolla.

Morgan Plus Four Joins the 21st Century

The Morgan Plus Four—released in 1950 as the Plus 4 and a descendant of the 1936 4/4—has steadfastly defied a changing world. It remained in production, looking much the same as ever, with a less than robust steel chassis, an antediluvian sliding-pillar front suspension, and a leaf-spring rear axle beneath a classic 1930s ash-frame body. Until now.

The company founded by HFS Morgan in 1909 has boldly ambled into the future. It has revitalized its cars to maintain their vintage charm while injecting previously unheard-of comforts, practicality, and safety—enough that Morgan will return to the U.S. market in the second half of 2023, ending its latest regulatory-driven absence.

The company's red-brick factory in Malvern Link, Worcestershire, still cries “ye olde.” There, its workers largely hand-build fewer than 1000 cars a year. And the cars are finally fit for the moment.

Morgan's new CX-Generation platform is a thoroughly modern bonded-aluminum tub that's twice as rigid as the outgoing platform. A contemporary independent suspension offering unprecedented ride quality is now appended onto it. Newly installed power steering lacks the feel we're used to in a Morgan, but you can now navigate corners without the ever-present danger of errant bumps sending you bouncing off into the hedgerows.

The Plus Four uses BMW's 255-hp turbocharged 2.0-liter four, which moves the roughly 2350-pound machine with alacrity. Paired with an eight-speed automatic, it offers 295 pound-feet of torque and should deliver a 60-mph time of under five seconds. (A six-speed manual is available in the U.K. but won't be offered in the U.S. at launch.)

The revitalized Morgan's range of comfort and convenience features is almost as eye-opening as its ride. Heated leather seats, air conditioning, airbags, power door locks, Bluetooth connectivity, and USB ports lead one to exclaim, “Blimey, it's almost like a real car!”

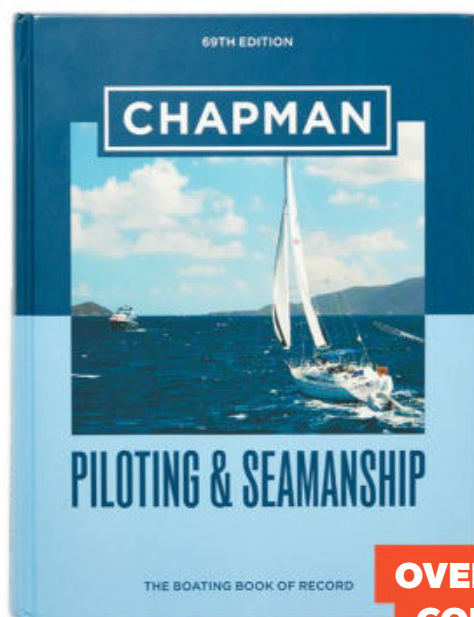
The redesigned convertible top combined with improved sealing for the old-school side curtains keeps out the rain, another revelation. An electric windshield defroster helps maintain a clear view of the road ahead. This, along with the powerful four-wheel disc brakes, further imparts a sense of security largely absent in previous Morgans.

The new model is a captivating bespoke sports car with classic overtones and modern performance. And it's a surprisingly good value for a hand-built machine. Expect it to be priced around \$70,000 for its U.S. launch. The firm may be old, but boy, is it plucky. Good show, chaps. —J.K.



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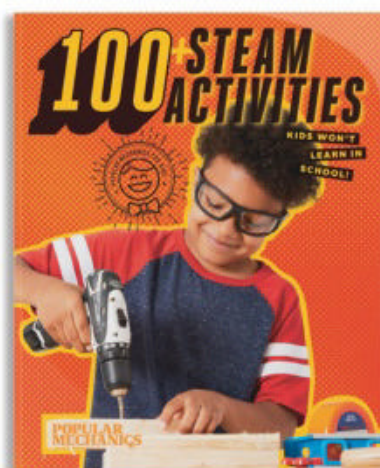
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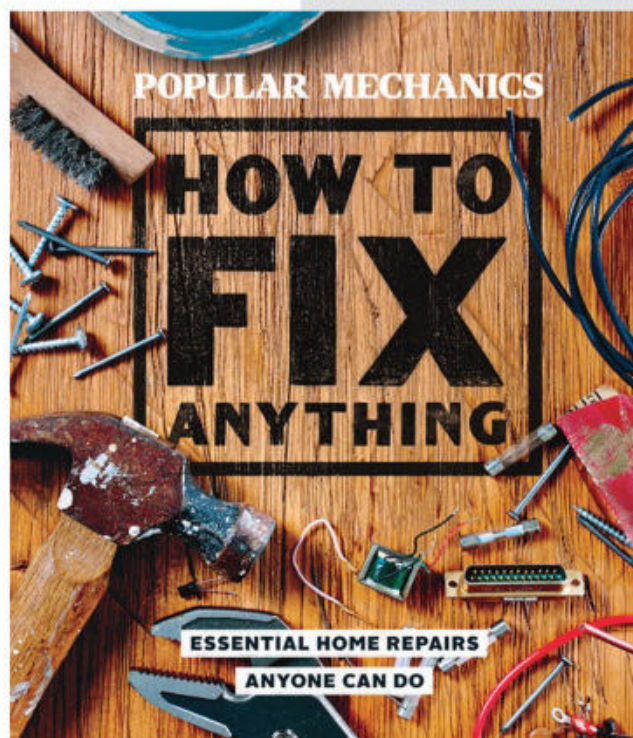
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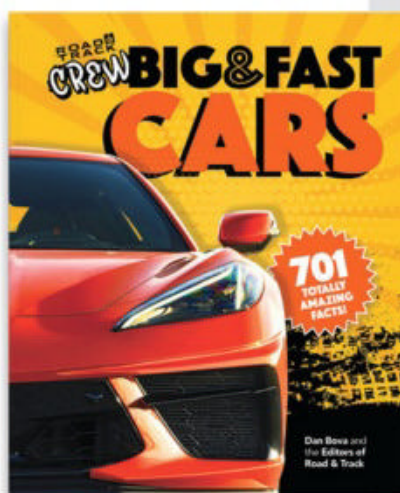
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THE RUNDOWN

An expert look at the newest and most important vehicles this month.

Lamborghini fits a new pair of running shoes on its biggest bull, page 72.



2023 FORD F-150 RAPTOR R ~ BY EZRA DYER

Trucks of Fury

Highs: 700 horsepower, monster-truck presence, surprisingly graceful on-road manners. **Lows:** Not 703 horsepower, can't lock the rear diff in two-wheel drive, it costs how much?

The day began with weather that would scare Jim Cantore, when the gales of November came to the sand dunes of Michigan's Silver Lake State Park. The thoroughly soaked mounds provided almost too much traction. Not for the guy in the rented Buick Encore, but enough to make even the steepest of dunes only a minor inconvenience to the 2023 Ford F-150 Raptor

R. When you've got 700 horsepower and 37-inch beadlocked tires, wet sand may as well be interstate slab.

The Raptor R is the long-awaited (but maybe not inevitable) zenith of the Raptor brand. In a world with no Ram TRX, would Ford drop a Shelby GT500 engine into a pickup? Science tells us that observation influences outcomes, and we have to think Ford observed Ram selling all the \$86K trucks it could build and said, "Maybe we should do that."

Given the obviousness of the Raptor R's competition, it's a bit curious that Ford didn't go for horsepower bragging rights. With the TRX making 702 horsepower, why not give the Raptor R 703? That's something Ram might do. Instead, Ford arrived at an even 700 horsepower at 6650 rpm. Trucks like this are about big numbers and



loud noises and taking dirt that was over here and throwing it way over there and then doing some sweet jumps. The Raptor R is spectacularly well-equipped to handle all of that, even without superlative horsepower.

For Raptor duty, Ford's supercharged 5.2-liter V-8 gets a truck tune that fattens up the torque curve, delivering 640 pound-feet at 4250 rpm. The blown 5.2 gulps air so ferociously that Ford had to reinforce the intake ductwork. A new supercharger pulley gets the boost ramped up sooner, all the better for spinning those 37-inch BFGoodrich All-Terrain T/A KO2 tires. Because the V-8 adds 100 pounds to the front end, spring rates are increased, and there are some beefier frame brackets, but the suspension mostly carries over from the 450-hp twin-turbo 3.5-liter truck.

Like its EcoBoost counterpart, the Raptor R is gloriously adaptable to whatever

terrain you care to assault. The transfer case offers rear-wheel drive, automatic four-wheel drive, plus four-high and four-low. The steering effort, Fox Live Valve dampers, and exhaust sound all are independently adjustable via steering-wheel buttons, which include an R button for your favorite preset combo. And there are drive modes galore to tailor responses for the situation at hand. Baja is our favorite.

The Raptor R distinguishes itself when you flatten the accelerator and the twin four-inch exhaust cannons fire a fusillade of V-8 fury. Your shoulders are buried into the embroidery on the seatback while the 10-speed automatic shuffles gears quicker than a blackjack shoe rearranges cards. The front end climbs toward the sky, and the steering wiggles a little bit in your hands as the Raptor searches for traction.

On pavement, there's a chirp of the front tires during a blast to 60 mph in 3.6 seconds.

A little hood bulge, an orange "R" in the grille, and an orange "R" in "Raptor" on the bed are the only visual cues this isn't a regular F-150 Raptor on 37s.



That's a tenth quicker than the best TRX result. We expected a bit more considering the Raptor R weighs a staggering 704 pounds less than the TRX. The Ford really shows its accelerative superiority with a 12.0-second quarter-mile, and the run to 100 mph and a rolling start from 5 to 60 mph are roughly a half-second swifter. The Ford nabs a slight win on the skidpad (0.71 g) and a slight loss on stopping distances.

Indulging our juvenile urge to throw sand required running in rear-drive mode, which is how we discovered the brake-based limited-slip function. The system works when one side or the other experiences slip, and the brake on that side gives a squeeze to direct torque to the side with traction. So if, say, you want to roost some dunes in two-wheel drive, where the rear locker can't be engaged, the rear brakes will get a workout. Ask us how we know.

It is true that a normal driver would never experience this particular problem (we're paraphrasing what Ford told us). To that, we say 700-hp pickups don't exactly attract the left-brain thinkers among us, and Raptor R owners will drift it in rear-drive mode, probably while exiting the dealership. So why not just allow the locking diff to engage in two-wheel drive?

The starting price is a cool \$109,145, \$31,575 more than a base Raptor (and \$23K more than a TRX). Whether that's worth it or totally ridiculous depends on your point of view. It's tempting to conclude that this is where the supercharged V-8 pickup battle ends, but perhaps not. What say you, GM?



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The Raptor R's engine is a supercharged 5.2-liter V-8 based on the 760-hp Predator found in the Mustang GT500. Ford upped low-end torque for the Raptor R with a smaller supercharger pulley, at the cost of 60 horses at the top end.

THE NUMBERS

Vehicle Type: front-engine, rear/4-wheel-drive, 5-passenger, 4-door pickup
Base/As Tested \$109,145/\$111,935
Engine: supercharged and intercooled DOHC 32-valve V-8, aluminum block and heads, port fuel injection
Displacement 315 in³, 5163 cm³
Power 700 hp @ 6650 rpm
Torque 640 lb-ft @ 4250 rpm
Transmission: 10-speed automatic
Dimensions
 • **Wheelbase** 145.4 in
 • **L/W/H** 232.6/87.0/80.6 in
 • **Curb Weight** 6077 lb

TEST RESULTS

60 mph 3.6 sec
100 mph 9.1 sec
1/4-Mile 12.0 sec @ 112 mph
Results above omit 1-ft rollout of 0.3 sec.
Rolling Start, 5-60 mph 4.1 sec
Top Speed (gov ltd) 114 mph
Braking, 70-0 mph 205 ft
Braking, 100-0 mph 430 ft
Roadholding, 300-ft Skidpad 0.71 g
C/D Fuel Economy
 • **Observed** 10 mpg
EPA Fuel Economy
 • **Comb/City/Hwy** 12/10/15 mpg





2022 AUDI Q4 50 E-TRON QUATTRO
PRESTIGE ~ BY DAN EDMUNDS

E-tron and On

Highs: Conventionally handsome exterior, upscale and user-friendly interior, largely free of EV weirdness. **Lows:** Mechanically identical to its Volkswagen sibling, ho-hum highway range, not as speedy as some rivals.

When Audi's e-tron electrified sub-brand first appeared, it was on the unremarkable A3 Sportback plug-in hybrid. The first EV to bear the moniker came three years later, when a larger, far more expensive SUV called the Audi e-tron hit the market. That ute's lack of an alpha-numeric model name was confusing, and things didn't become any clearer with the arrival of the e-tron GT performance sedan. Now comes the Q4 e-tron, and its designation at least helps place it within the greater Audi lineup.

Larger than a Q3 and tidier in size than a Q5, the Q4 50 e-tron Quattro is a platform-mate of the Volkswagen ID.4. Audi's design language works well when draped over the shared 108.7-inch wheelbase and 62.3-inch front and 61.5-inch rear track widths, resulting in chunky bulldog styling that looks fetching in SUV form. The result isn't nearly as handsome on the \$2800-pricier Sportback model, but that's often how it goes with slope-backed SUV derivatives.

As in the all-wheel-drive ID.4, a pair of AC motors that team up to produce 295 horsepower and 339 pound-feet of torque propel the Audi. Likewise, the same 77.0-kWh lithium-ion battery feeds both SUVs, giving the slightly heavier Q4 Quattro 241 miles of EPA range versus the ID.4's 251 miles. The Q4 line's marquee range of 265 miles comes from the 201-hp single-motor rear-wheel-drive version.

Underway, the Q4 e-tron is no canyon carver, but it feels utterly composed and balanced because of its low center of gravity and near-equal front-to-rear weight distribution. It confidently cruises straight highways with segment-appropriate steering effort, though on-center feel is more authentic with lane centering switched off. The Q4's 60-mph time of 5.6 seconds feels sprightly in suburbia even if it trails the results from some dual-motor competitors. The 0.2 second it gives away to the Volkswagen stems from the extra 80 pounds our top-drawer Prestige trim was packing.

Inside, the Q4 Prestige feels far more upscale than the most expensive ID.4, as it should, considering the Audi's \$7990 price premium. The Q4 does retain some questionable touch-sensitive tomfoolery, but at least it avoids the grossest mistakes of the ID.4. The Audi's climate controls are stand-alone physical toggles instead of capacitive-touch panels, and the driver's window controls consist of four distinct switches instead of the Volkswagen's irksome single pair that operate both the front and rear windows. Best of all might be the available

head-up display, which uses hovering augmented-reality animations to underline vehicles within adaptive-cruise range and point you to the next navigation turn.

Bottom line: If you like the idea of the Volkswagen ID.4 but are willing to pay for a more upscale and sumptuous experience, the Audi Q4 e-tron is just the ticket.

THE NUMBERS

Vehicle Type: front- and mid-motor, all-wheel-drive, 5-passenger, 4-door wagon
Base/As Tested \$51,095/
\$60,895

Motors: induction AC, permanent-magnet synchronous AC
Combined Power 295 hp
Combined Torque 339 lb-ft
Battery Pack: liquid-cooled lithium-ion, 77.0 kWh
Onboard Charger: 11.5 kW
Transmissions: direct-drive
Dimensions
• **Wheelbase** 108.7 in
• **L/W/H** 180.7/73.4/64.7 in
• **Curb Weight** 4964 lb

TEST RESULTS

60 mph 5.6 sec
1/4-Mile 14.2 sec @ 98 mph
100 mph 14.9 sec
Results above omit 1-ft rollout of 0.3 sec.
Rolling Start, 5-60 mph 5.7 sec
Top Speed (gov ltd) 113 mph
Braking, 70-0 mph 177 ft
Roadholding, 300-ft Skidpad 0.84 g
C/D Fuel Economy
• **Observed** 93 MPGe
• **75-mph Hwy Range** 190 mi
EPA Fuel Economy
• **Comb/City/Hwy** 95/100/
89 MPGe
• **Range** 241 mi

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Track Tractor

This Lamborghini SUV
excels in an unlikely arena.

An SUV for the track sounds as ridiculous as a supercar optimized for off-roading. And yet, Lamborghini says that around a typical racetrack, its new Urus Performante is quicker than the original 2015 Huracán. After experiencing the Performante on Italy's Vallelunga circuit, we believe it.

Lamborghini adds 16 horsepower to the 2022 Urus's twin-turbo 4.0-liter V-8 for a total of 657 ponies, while the 627 pound-feet of torque is unchanged. The Performante exhales through an even raspier exhaust, and the eight-speed automatic boasts reduced shift times.

A new Torsen center differential can send more torque rearward, where an active diff apportions it side to side. The Performante rides 0.8 inch lower and ditches air springs for steel coils, losing the ability to vary ride height but sharpening handling. Lamborghini also retunes the adaptive dampers, active anti-roll system, and rear-wheel steering for the Performante.

A carbon-fiber hood, a titanium exhaust, and lighter wheels help shed a claimed 104 pounds. Given that the last Urus we tested weighed 5314 pounds, the Performante is still no lightweight. A revised front end and a new liftgate spoiler man-

age the twofer of decreasing aerodynamic lift and reducing drag.

There is something otherworldly about a vehicle so big that can accelerate so fast, devouring gear ratios in a storm of sound and fury. More impressive is the Performante's ability to corral its tremendous surge on a racetrack. The vast carbon-ceramic brakes—17.3-inch discs gripped by 10-piston calipers up front—are unchanged, but cooling is improved. They scrubbed off speed without complaint, radiating the heat of a brick pizza oven after a few hot laps.

The optional Trofeo R tires generate massive grip and deliver an amazing level of handling precision for something this size. The steering feels crisper, and the Performante is keener to turn into corners. Rear-biased torque delivery fights understeer, and the rear steering is evident in faster turns, though getting on the gas too early will have the front end edging wide. The only weakness on the track was the gearbox, which lacks the snap of

a dual-clutch transmission.

Starting a slide in the new Rally mode, effectively an off-road drift setting, requires a determined jab at the accelerator, and the driver must keep the pedal mashed for the system to regulate the yaw angle. Backing off the accelerator—a natural first instinct—brings the traction control back into play, which bogs down the car.

While we didn't drive the Performante on the street, its ride is undoubtedly firmer than the standard Urus's. Lamborghini is confident that buyers will gladly sacrifice compliance for the higher-intensity experience. These are people who aren't satisfied with merely fast and want to skip straight to fastest.



Hex appeal: Swathed in Alcantara, the Urus Performante cabin makes extensive use of hexagons.

THE NUMBERS

Vehicle Type: front-engine, all-wheel-drive, 4- or 5-passenger, 4-door wagon
Base \$264,671
Engine: twin-turbocharged and intercooled DOHC 32-valve V-8, aluminum block and head, direct fuel injection
Displacement 244 in³, 3996 cm³
Power 657 hp @ 6000 rpm
Torque 627 lb-ft @ 2300 rpm
Transmission: 8-speed automatic
Dimensions
• **Wheelbase** 118.3 in
• **L/W/H** 202.2/79.8/63.7 in
• **Curb Weight** 5250 lb
Performance (C/D est)
• **60 mph** 2.9 sec
• **100 mph** 7.4 sec
• **1/4-Mile** 11.2 sec
• **Top Speed** 190 mph
EPA Fuel Economy
• **Comb/City/Hwy** 16/14/19 mpg

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Getting Warmer

A prototype drive of the high-performance Integra suggests it could be a nice foil for the raucous Civic Type R.

What's the best way for Acura to improve upon its new Integra? Give it more power, better tires, and an upgraded chassis. So we're pleased that the Integra's upcoming performance variant, the Type S, takes its powertrain from the delightful new Civic Type R and includes numerous handling upgrades. We drove a prototype of the Type S at Honda's proving grounds in Tochigi, Japan. Slated to arrive this summer, the new model should offer the 40-plus crowd an alternative to the raucous Type R.

Mechanical details are slim at this point, but we know that the Integra shares the Type R's turbocharged 2.0-liter inline-four, six-speed manual transmission, limited-slip differential, and front-wheel-drive layout. In the Integra, this engine should at least match, if not exceed, the Civic's 315 horsepower and 310 pound-feet of torque.

Were you hoping Acura would introduce an all-wheel-drive system or a dual-clutch automatic transmission for quicker acceleration? Tough luck. (But we'll gladly take the manual, thanks.) Because the base Integra is less expensive and sophisticated than its

German entry-lux competitors, the Type S will likely slot in below the Mercedes-AMG CLA35 and the BMW M235i Gran Coupe, for example, in terms of performance and price.

Of course, that doesn't mean it will be any less fun to drive than its rivals. Our brief experience behind the wheel suggests the Type S treatment goes a long way toward livening up the Integra's dynamics, which were already lively. The steering is heavier while remaining responsive and precise, and the wider tires lend a planted feel. By the way, those 265-series Michelin Pilot Sport 4S tires are of the grippy high-performance summer variety (a notable omission on the regular Integra, which is only available with all-season rubber). They will vastly improve skidpad and braking figures



There's a message in the pattern of this Integra's camouflage. The Type S arrives this summer.



and help sharpen turn-in and steering feel too.

We'll have to wait to drive the Type S on public roads to judge its ride quality next to the firm Type R, but the turbo four in this package impressed us. It revs eagerly, pulls hard to triple-digit speeds, and even makes plenty of character-adding exhaust pops and crackles.

Because this is a Type S and not a Type R, the styling is less extroverted. The Integra lacks the Civic's giant wing and aggressive-looking vents and scoops, which could be good or bad, depending on your perspective. We like the subtly meaner stance of the Integra Type S, which has larger 19-inch wheels and wider fenders than the standard car, with different front and rear fascias. The interior of the prototype didn't display any obvious differences, although the front seats have a bit of extra bolstering.

With a dash more sophistication than the Honda, the Integra Type S could prove enticing. If it's priced within a few thousand dollars of the Civic Type R's \$43,990 base, there should be plenty of interest in this alternative Honda hot hatch. We're eager to find out more and spend more time behind the wheel when the Integra Type S comes closer to reality.



2023 RAM 2500 HEAVY DUTY REBEL
~ BY DEREK POWELL

THE REBELLION ADVANCES

For over a decade, the Power Wagon has served as Ram's burly off-road king. But it doesn't offer Cummins power, and customers clamored for a stonking diesel off-roader with more towing capacity. Enter



Traditional pickup-truck customers who want to rebel against the Ram's luxurious interior can still order a front bench seat.

the Ram 2500 Heavy Duty Rebel. It gets some of the Power Wagon's trail goodies, including skid plates and 33-inch tires, but not the disconnecting anti-roll bar. And only the rear axle features a locker. These small concessions facilitate 3140-pound payload and 16,870-pound tow ratings—nearly double the payload of the Power Wagon and over three tons more towing capacity.

That maximum tow rating is for the base engine, a 6.4-liter V-8 with 410 horsepower and 429 pound-feet of torque. The Hemi is linked to an eight-speed transmission and a two-speed transfer case with part-time four-wheel drive. The Cummins gets a six-speed automatic and a lower tow rating because the engine weighs so much more. Still, the optional 370-hp 6.7-liter diesel inline-six doesn't disappoint, twisting out 850 pound-feet at only 1700 rpm.

Off-road, the Rebel adopts a refreshingly old-school approach. There's no bewildering array of drive modes; choose high or low range and whether to lock the rear differential. Even so, activating the diff was a hit-or-miss affair, sometimes requiring up to 30 seconds of patience before it would engage. Other times it simply refused to grant our request.

The 2500 Rebel starts at \$68,940 with the Hemi; the diesel costs \$9595 more. Given that the Rebel offers nearly as much off-road aptitude as a Power Wagon, along with increased capabilities, the choice comes down to how much stuff you want to haul and how far off-road you want to go.

THE NUMBERS

Vehicle Type: front-engine, rear/4-wheel-drive, 5- or 6-passenger, 4-door pickup	
Base	\$68,940
Engines: turbocharged and intercooled pushrod 24-valve 6.7-liter diesel inline-6, 370 hp, 850 lb-ft; pushrod 16-valve 6.4-liter V-8, 410 hp, 429 lb-ft	
Transmissions: 6-speed automatic, 8-speed automatic	
Dimensions	
• Wheelbase	149.3 in
• L/W/H	238.9/83.4/80.9 in
• Curb Weight	7500-8300 lb
Performance (C/D est)	
• 60 mph	7.5-7.8 sec
• 1/4-Mile	15.8-16.1 sec
• Top Speed	100 mph



2023 BMW i7 ~ BY CSABA CSERE

Seamlessly Electric

The i7 smoothly integrates an EV powertrain into the new 7-series megasedan.

Should an EV look different from a gasoline-powered equivalent, or is electric power now just another powertrain choice, like picking between a four- and a six-cylinder engine? BMW's redesigned 7-series comes down firmly in the latter camp with the i7.

Substantial and elegant, the new 7 has presence. Some of that is down to sheer size: This BMW is the largest car in its segment by a fair amount. The

The towering kidney grilles offer illumination for extra panache. Inside, a single curved piece of glass houses two digital displays.

sedan's 212.2-inch overall length is just over five inches greater than before—though the wheelbase grew by just 0.2 inch (there's no short-wheelbase version). It's also almost two inches wider and is 2.6 inches taller.

The height increase is mainly due to the 4.9-inch-deep underfloor battery compartment, which houses a 101.7-kWh pack good for an EPA-estimated range of 296 to 318 miles, depending on wheel and tire size. Its electrons energize a 255-hp front motor and a 308-hp rear unit for a total of 536 horsepower and 549 pound-feet of torque. Both motors use excited-field coils rather than permanent magnets to avoid the need for rare-earth elements.

We predict this formidable combo will send the nearly 6000-pound i7 to 60 mph in 4.1 seconds. The i7 certainly feels that quick. As with most EVs, the torque-rich, single-speed powertrain is smooth, seamless, and instantly responsive, particularly in town. Beyond 70 mph, acceleration tapers off simply because the power-to-weight ratio is not great. But keep your foot in it, and the i7 will reach 149 mph.

BMW provides three levels of regenerative braking, or you can select B on the transmission toggle for one-pedal driving. When you do press the left pedal, you appreciate BMW's fine job of blending the regen





and the friction brakes with no discontinuities in pedal effort or travel.

Running hard, the i7 feels composed and capable, though you never forget it weighs nearly three tons. With standard air springs and adjustable dampers, as well as a low-mounted battery, the car remains flat in corners. Sport mode tightens the dampers, lowers the ride height by 0.4 inch, and unlocks full power. In Normal mode, the motors produce just 483 horsepower, but you still get the full 549 pound-feet. M Sport-equipped i7s have a steering-wheel-paddle-initiated Boost mode that enables peak power and uncorks an extra 56 pound-feet of torque for several seconds.

The i7's ritzy interior features jeweled controls and optional cashmere upholstery. The standard Panoramic Sky Lounge LED sunroof can produce a subtle light show. Optional front and rear power-opening and -closing doors each have their own battery of sensors to avoid banging into adjacent cars, walls, or people. The Executive Lounge option provides a reclining right rear seat and a footrest on the back of the front passenger's seat. Rear passengers also can enjoy the 31.3-inch 8K LCD Theater Screen that unfolds from the ceiling. Control it and make any rear-seat adjustments using the 5.5-inch touchscreens in the armrests of each rear door.

Up front, BMW's Curved Display houses a 12.3-inch screen for instrumentation along with a 14.9-inch center display. The latter is operated via the traditional iDrive

THE NUMBERS

Vehicle Type: front- and rear-motor, 5-passenger, 4-door sedan
Base **\$120,295**
Motors: 2 current-excited synchronous AC, 255 and 308 hp, 269 and 280 lb-ft
Combined Power 536 hp
Combined Torque ... 549 or 605 lb-ft
Battery Pack: liquid-cooled lithium-ion, 101.7 kWh
Transmissions: direct-drive
Dimensions
• **Wheelbase** 126.6 in
• **L/W/H** 212.2/76.8/60.8 in
• **Curb Weight** 5950 lb
Performance (C/D est)
• **60 mph** 4.1 sec
• **100 mph** 8.8 sec
• **1/4-Mile** 12.5 sec
• **Top Speed** 130-149 mph
EPA Fuel Economy
• **Comb/City/Hwy** 83-89/81-87/85-92 MPGe
• **Range** 296-318 mi

controller or the touchscreen. Scattered around the cockpit are several shortcuts, which are helpful because the car's apps total 43, each with several submenus.

Overall, the i7 is a terrific luxury sedan. Comfortable, richly appointed, and effortlessly powerful, it offers a plethora of convenience features. Of course, that's also true of its V-8-powered 760i sibling, which costs \$5700 less than the i7's \$120,295 price. But the electric powertrain adds an extra element of smoothness and refinement. If you anticipate a road-trip-free life for the car, it's the way to go.

2023 BMW XM ~ BY CSABA CSERE

AN ODD CHOICE TO COMMEMORATE 50 YEARS OF M

If you had a performance division with 50 years of glorious history, would you celebrate it by introducing a plug-in-hybrid SUV? That's exactly what BMW has done with the new XM—the M division's first electrified car. The SUV rides on the X7's platform with slightly shorter overhangs. It's powered by a 483-hp twin-turbo 4.4-liter V-8 coupled to a ZF eight-speed automatic that incorporates a 194-hp electric motor. The combined output of 644 horsepower should motivate this \$159,995, 6000-pound lump to 60 mph in 4.1 seconds. If that's not quick enough, a Label Red version will offer over 735 horsepower for an additional \$25K or so. Looking a bit like the iX with horizontal kidneys, split headlights, and exaggerated details, the XM adds twin roundels etched into the top corners of its rear window, much like the roundels on the back end of the legendary M1, the M division's first dedicated car. Guess that will have to do.



EV, Straight Up

Highs: 253-mile EPA range, practical interior, free of silly EV gimmicks.
Lows: All work and no gimmicks makes it a dull boy, not so lively off the line, Chevy Bolt EUV costs less.

A boring car isn't necessarily a bad car. The Kia Niro EV might elicit a yawn or two when you're driving it, but it's remarkably adept at its intended purpose, which is to deliver an EPA-rated 253 miles of range (210 miles in our 75-mph highway range test). A bigger problem is its price. The Niro EV starts at \$40,745, \$12,550 more than the Chevrolet Bolt EUV and \$1955 above the Volkswagen ID.4's base price.

Sizewise, the Niro EV is roughly midway between those two competitors. It would blend into the small-crossover landscape if not for its avant-garde D-pillar, which is available in contrasting colors and recalls the Audi R8's side blade. (Kia calls the Niro's extroverted D-pillar the Aero Blade, so the brand isn't exactly discouraging R8 or Dyson connotations.)

A 201-hp motor drives the front wheels, and acceleration lacks the neck-snapping punch of many EVs, as Kia tuned the accelerator to feed in power gradually rather than smacking you with its 188 pound-feet of torque right off the line. In Eco mode, the right pedal acts like it doesn't know you're flooring it. Switching to Normal is closer to what you might expect from a typical Eco mode, and Sport is what Normal should be. The time to



hit 30 mph is a sluggish 2.9 seconds. Past 30 mph, the motor starts sending full power to the wheels. In our hands, the car got to 60 mph in 6.7 seconds and through the quarter-mile in 15.2 seconds at 94 mph.

Sport mode also adds heft to the steering, but Normal and Eco deliver the most natural steering feel. The Niro will slice through corners with precision, albeit without a lot of grip from its low-rolling-resistance all-season rubber. We measured 0.84 g on the skidpad. Hitting the left pedal blends regenerative braking and the friction brakes natu-

The Niro EV's interior is animal-free, but if a koala is your passenger, it might want to nibble on the eucalyptus-based upholstery.



THE NUMBERS

Vehicle Type: front-motor, front-wheel-drive, 5-passenger, 4-door wagon
Base/As Tested \$40,745/\$47,440
Motor: permanent-magnet synchronous AC
Power 201 hp
Torque 188 lb-ft
Battery Pack: liquid-cooled lithium-ion, 64.8 kWh
Onboard Charger: 11.0 kW
Transmission: direct-drive
Dimensions
• **Wheelbase** 107.0 in
• **L/W/H** 174.0/71.8/61.8 in
• **Curb Weight** 3715 lb

TEST RESULTS

60 mph 6.7 sec
1/4-Mile 15.2 sec @ 94 mph
100 mph 17.6 sec
Results above omit 1-ft rollout of 0.3 sec.
Rolling Start, 5-60 mph 6.6 sec
Top Speed (gov ltd) 106 mph
Braking, 70-0 mph 182 ft
Roadholding, 300-ft Skidpad 0.84 g
C/D Fuel Economy
• **75-mph Hwy Range** 210 mi
EPA Fuel Economy
• **Comb/City/Hwy** 113/126/101 MPGe
• **Range** 253 mi

rally and progressively, which many electric vehicles miss. Stops from 70 mph take 182 feet. Paddles on the back of the steering wheel adjust the regen. One-pedal driving is possible, and holding the left paddle will bring the Niro to a stop regardless of regen mode.

When it comes time to recharge, Kia strangely doesn't include a 120-volt cord and seemingly expects customers to rely on Level 2 hookups or DC fast-charging. A DC fast-charger can take the battery from 10 to 80 percent in under 45 minutes, according to Kia, with a peak charging rate of 85 kW. (With its 800-volt architecture, the EV6 needs just 18 minutes.) The automaker is throwing in 500 kWh of free charging through Electrify America.

While you're sitting in the spacious cabin waiting for the battery to refill, gaze up at the headliner made from

recycled wallpaper. Thank you, Grammy Mildred. The fabric on the seats is partially constructed from eucalyptus, which will delight koalas.

The digital instrument cluster offers three different gauge looks, and Kia's infotainment system is easy to use. For a moment we thought there was no volume knob, and then we hit the button that turns the HVAC into radio controls. Suddenly the temp knob turned into a volume knob, and another push changed it back.

The battery-powered version is one of the three powertrains available on the new Niro. There's also a hybrid model and a plug-in hybrid with up to 33 miles of electric range. Kia anticipates 25 percent of Niro customers will go for the EV. But we're wondering how many Bolt EUV cross-shoppers will want to spend \$12K more on a Niro.

2022 SUBARU WRX GT ~ BY MIKE SUTTON

Maturity Is Overrated

Highs: Quicker to 60 mph than the manual, active safety tech included, lots of drive modes. **Lows:** Carries extra pounds, a CVT just isn't as fun as a stick, luxury price without all the luxury niceties.

After decades of spitting fire and spraying gravel, the Subaru WRX has grown up. Now in its fifth generation, Subaru's proto-rally car has attained a higher level of sophistication. For proof, see the new range-topping WRX GT.

In other WRX models, the 271-hp turbocharged 2.4-liter flat-four still comes standard with a six-speed stick (the CVT is an option), but the GT is strictly a two-pedal affair. At \$43,390, it's also \$5220 more than the old 310-hp STI, which is not returning.

The automatic opens the door to a host of driver aids, while adaptive dampers are a GT exclusive along with numerous customizable drive modes. The car feels stiff and nicely balanced, with crisp steering delivering the direct response ideal for barreling down goat paths.



The GT weighs 151 pounds more than the manual and takes almost a second longer to reach 30 mph. Its 5.4-second 60-mph time is 0.1 second quicker, as the stick needs two shifts to reach that mark. But the manual runs a quicker quarter-mile: 13.9 seconds to the GT's 14.1, both at 101 mph.

In its tamer drive settings, the GT cruises in comfort, albeit with only a marginally better ride than the standard car. And save for the continuously variable automatic's inherent mushiness when tipping into the throttle, particularly at stop-and-go speeds, its stepped ratios mostly eliminate engine droning.

Seeing the hood flutter on the highway, though, is a reminder of the WRX's econocar roots. Most GT shoppers would likely be happier with a (less expensive) 260-hp Legacy. We're left longing for the cruder times of the WRX's youth. 🇺🇸

THE NUMBERS

- Powertrain:** 271-hp turbo 2.4-liter flat-4; continuously variable automatic
Base/As Tested \$43,390/\$43,390
C/D Test Results
• 60 mph 5.4 sec
• 1/4-Mile 14.1 sec @ 101 mph
• Top Speed (gov ltd) 134 mph
EPA Fuel Economy
• Comb/City/Hwy 21/19/25 mpg

SUBARU PHOTOGRAPHY BY MICHAEL SIMARI



2000-09

WHAT TO BUY: HONDA S2000

Overseen by Honda chief engineer Shigeru Uehara (the father of the original Acura NSX and the Integra Type R, two cars that embodied Japanese performance in the '90s), the Honda S2000 is a two-seat roadster we described as “the car of your dreams.”

We'd lean toward well-maintained second-gen models with their improved low-end torque and refined suspension, though there's undeniable joy in revving an early S2000 to its 8900-rpm redline. Of the early cars, the 2002-03 examples are the best, with their transmission and interior upgrades and a glass rear window. —James Tate

PROBLEM AREAS

As with any high-revving engine, expect to deal with some wear and tear in an S2000. Any S2000 inspection should cover wheel bearings, transmission synchros, and soft-top condition. Have a specialist check the valves for cracked retainers. Second-generation S2000s (especially 2006-09 models) can exhibit bubbling or cracking along the dash, and some

run into issues with the transmission popping out of gear. The S2000 has long been a popular platform for street or racing mods, so it's important to get every service record you can and line up a good technician to go through the one you're considering. The good news is the aftermarket remains strong for S2000 parts and modifications, and Honda still offers replacement parts.

VALUE

The days of sub-\$10,000 S2000s appear to be over. As of this writing, the auction website Bring a Trailer has yet to log a sale under \$20,000 in 2022. But don't fret—examples with more than 100,000 miles can still be found in the teens. By far, the most desirable S2000s right now are pristine 2008-09 CRs, with a handful topping the \$100,000 mark over the past couple of years on BaT. Otherwise, expect to land somewhere between \$20,000 and \$75,000, with lower-mileage second gens toward the high end of that range.

RECENT SALES

2002 Honda S2000 (July 2022)
\$25,800
28,000 miles

2008 Honda S2000 CR (September 2022)
\$125,000
6000 miles

2006 Honda S2000 (May 2022)
\$45,600
7000 miles

From Bring a Trailer.

“If you're a true sports-car aficionado, the line forms here.”

—LARRY WEBSTER, C/D, AUGUST 1999

2007
HONDA
S2000

2004 HONDA S2000
240-HP 2.2-LITER INLINE-4,
2866 LB

Test Results

• 60 mph 5.5 sec
• 100 mph 14.0 sec
• 1/4-Mile 14.0 sec @ 100 mph
• Top Speed 150 mph
• Braking, 70-0 mph 163 ft
• Roadholding, 300-ft Skidpad ... 0.88 g

From C/D, July 2004. Acceleration times adhere to our old rollout rule of 3 mph.

ENGINE

The heart of the S2000 is its naturally aspirated inline-four. In the early cars (2000-03, or AP1 in chassis-code talk) the 2.0-liter produced 240 horsepower at 8300 rpm and a meager 153 pound-feet of torque at a silly 7500 rpm. To fatten up the low end, later models (2004-09, or AP2) bumped displacement to 2.2 liters and reconfigured the VTEC cam profiles. The redline dropped to 8000. Horsepower remained 240, although peak power occurred 500 rpm earlier. Torque rose to a slightly more useful 162 pound-feet at 6500 rpm.

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2023 Niro EV Wave shown with optional features. Some features may vary. ¹EPA-estimated 253-mile range based on a full battery charge. Actual mileage and range will vary with options, driving conditions, driving habits, vehicle maintenance, charging practice, battery age, weather, temperature, and your vehicle's condition. Battery capacity will decrease with time and use. For more information on range, please see www.fueleconomy.gov. ²Acceleration claim based on AMCI Testing Certified results of 2023 Niro EV Wave on dry pavement ESC off. Results reported June 2022. Actual results may vary depending on options, driving conditions, driving habits, and your vehicle's condition. Verification of these results should not be attempted. Always drive safely and obey all traffic laws. ³Distracted driving can result in a loss of vehicle control. When operating a vehicle, never use a handheld device or vehicle system that takes your focus away from safe vehicle operation.